

Iowa Pub. Emps.' Ret. Sys. et al. v. Bank of Am. Corp. et al. (Stock Loan Antitrust)

Plaintiffs' Motion for Class Certification and Appointment of Class Counsel

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COHEN MILSTEIN SELLERS & TOLL PLLC**

Attorneys for Plaintiffs Iowa Public Employees' Retirement System, Los Angeles County Employees Retirement Association, Orange County Employees Retirement System, Sonoma County Employees' Retirement Association, and Torus Capital, LLC

Overview of Topics

Predominance – Liability (Steig Olson)

Predominance – Impact

Predominance – Damages (Daniel Brockett)

Response to Defendants' conflict argument under Rule 23(a)(4)

Superiority

Platform Costs (Emmy Levens)

FTAIA

Predominance:

Do questions of law or fact common to class members predominate over any questions affecting only individual members?

Defendants conspired to block and boycott new offerings that would have made the Stock Loan market more competitive, transparent, and efficient



Common Proof of Liability



Common Proof of Impact

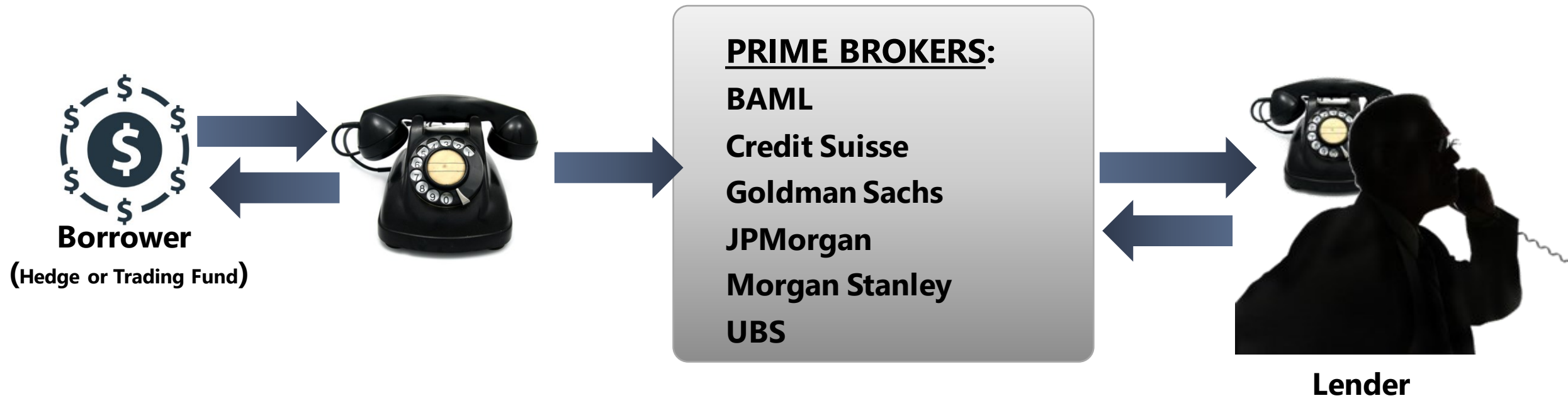


Common Methodology for Damages

Liability:

***All* issues regarding liability are common to Class members.**

Defendants conspired to protect their role as highly profitable *intermediaries* in the over-the-counter (OTC) Stock Loan market



The Stock Loan market is opaque for *borrowers and lenders alike*

SECURITIES AND EXCHANGE COMMISSION

17 CFR Part 240

[Release No. 34-93613; File No. S7-18-21]

RIN 3236-AN01

Reporting of Securities Loans

AGENCY: Securities and Exchange Commission.

ACTION: Proposed rule.

SUMMARY: The Securities and Exchange Commission ("Commission" or "SEC") is proposing a rule to increase the transparency and efficiency of the securities lending market by requiring any person that loans a security on behalf of itself or another person to report the material terms

of those securities lending transactions and related information has on loan and available to loan to a registered national securities exchange. The proposed rule would also require that the BNSA make information concerning each transaction and aggregate information available to loan.

DATES: Comments should be received on or before January 1, 2018.

ADDRESSES: Comment may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's internet comment form (<http://www.sec.gov/e-rule-comments>); or
- Send an email to rule-comments@sec.gov. Please include the subject line.

Paper comments:

Conformed to Federal Register version

I. Executive Summary

A. Introduction

1. Market Background

The securities lending market is opaque.¹

The lack of public information and data gaps creates inefficiencies in the securities

lending market. The gaps in securities lending data render it difficult for borrowers and lenders

alike to ascertain market conditions and to know whether the terms that they receive are

consistent with market conditions.¹³ These gaps also impact the ability of the Commission,

Borrowers and lenders face *high search costs*, which allow Prime Brokers to charge supracompetitive prices



Peter Diamond addressed these questions in an important paper from 1971, where he showed, first, that the mere presence of costly search and matching frictions does not suffice to generate equilibrium price dispersion. Second, and more strikingly, Diamond found that even a minute search cost moves the equilibrium price very far from the competitive price: he showed that the only equilibrium outcome is the monopoly price. This surprising finding has been labeled the “Diamond paradox” and generated much follow-up research.

Royal Swedish Academy of Sciences, describing scientific background on the 2010 Sveriges Riksbank Prize in Economic Sciences awarded to Peter Diamond, for research into search costs and competition

Competitive Price
150 bps

+

Search Cost
10 bps per inquiry

=

Dealer Quote
159 bps
(then 168, 177, 186...)

This OTC structure “has long been inefficient and antiquated, operating without an exchange or electronic trading platforms”

Background and Introduction

The securities lending environment has long been inefficient and antiquated, operating without an exchange or other electronic trading platforms. Contracts have been bilaterally negotiated and market participants have not been able to appropriately gauge supply and demand since reliable and transparent pricing has been lacking. The opacity in the marketplace has diminished consumer confidence and has stalled the securities lending market potential, estimated to be as much as \$16 trillion globally – of which only an estimated \$3.6 is actually lent out. Tightening of rules surrounding the deliveries of securities to support short sales will likely necessitate a more liquid and efficient stock lending marketplace. Additionally, events of 2008, such as the collapse of Lehman brothers and Bear Sterns, emphasize the need for counterparty guarantees.

2012 analysis by U.S.-based central clearinghouse

These problems with the OTC market “*spawned the development of new exchanges and electronic trading platforms*”

Current Situation

These current market events have spawned the development of new exchanges and electronic trading platforms, such as LendEX LLC, AQS, SecFinex and i-Sec, to provide efficient trading and price transparency to the stock loan market. While these services will bolster securities lending liquidity, their models are incomplete without the addition of a Centralized Credit Counterparty (CCP). The function of the CCP would be to confer a trade guaranty, support post trade anonymity and provide risk management services. LendEX announced its plans

But Defendants blocked *all of them*.

Defendants formed EquiLend to combat the “*threat of disintermediation*”



Why was EquiLend formed?

Threat of disintermediation forced firms to come together to create EquiLend

ECF No 414-4 (Class Cert. Ex. 4), at p.44

WEAKNESSES

- Equilend was born as a cartel; as a result, the board members have differing opinions and decision making abilities are decreased.

ECF No. 414-3 (Class Cert. Ex. 3), at p.8

Morgan Stanley

Goldman
Sachs



CREDIT SUISSE



Bank of America
Merrill Lynch

In June 2009, Defendants agreed *not to become involved with any multilateral trading platform ("MTF/CCP")*

Central Counterparty (continued)

➤ A poll of the Working Group yielded the following responses:

- Agent Lenders and Broker
- Clients of both Lenders and
- Some see a possible value in additional price transparency
- The costs have not been fully quantified
- The introduction of a CCP into the trade lifecycle may complicate a firm's established internal processes
- Everyone did see value in continuing securities lending

Everyone did see value in EquiLend continuing to be the clearinghouse for information regarding securities lending CCPs

➤ Working Group proposal:

- While there may be some potential advantages to a CCP at this time the Working Group believes that due to the lack of a clear benefit and the apparent challenges, EquiLend should take no immediate action
- However, EquiLend should continue to keep abreast of the market, convene the Working Group on an as-needed basis and report back at the next Board meeting on any developments
- To the extent any firm changes its direction on this initiative (i.e. becomes involved with an MTF/CCP) they will notify EquiLend

However, EquiLend should continue to keep abreast of the market, convene the Working Group on an as-needed basis and report back at the next Board meeting on any developments

To the extent any firm changes its direction on this initiative (i.e. becomes involved with an MTF/CCP) they will notify EquiLend

Defendants shared which new entrants *they were not planning to sign up with*



6 Q. And so there were times at
7 Equilend meetings where owners would
8 share their views on what new
9 entrants they weren't planning to
10 sign up with, right?

11 MR. HALL: Objection to form.

12 A. Yeah, I think that's fair.

William Conley (GS) “beat up” Agent Lender BNYM for supporting AQS

From:

"Conley, William J" <william.conley@ny.email.gs.com>

To:

"Santina, David" <david.santina@ny.email.gs.com>, "Brennan, Kelly R (Reed)." <kelly.brennan@ny.email.gs.com>, "Brett, Patrick" <patrick.brett@ny.email.gs.com>, "Byron, Shawn" <shawn.byron@ny.email.gs.com>, "Higgins, Jamie A. (Fiore)" <jamie.higgins@ny.email.gs.com>, "Klahr, Gary" <gary.klahr@ny.email.gs.com>

Date:

Wed, 03 Feb 2010 15:27:01 -0500

I beat Kathy up on this earlier. Will fill you in

From: Santina, David

To: Brennan, Kelly R (Reed).; Brett, Patrick; Byron, Shawn; Higgins, Jamie A. (Fiore); Conley, William J; Klahr, Gary

Sent: Wed Feb 03 15:22:43 2010

Subject: RE: Quadriserv Welcomes Additional Member Firms to the AQS Securities Lending Market

Whitney called me on this today explaining how this will, in no way, affect our business or relationship with them ,, and wanted to reiterate that they felt a fiduciary responsibility to their clients to be involved here , volume very low, fees too high,, etc.,

lets keep a close eye on this,, is there any visibility into daily executions on Quadriserv?

From: Bonn, Ralane

Sent: Wednesday, February 03, 2010 11:17 AM

To: Brennan, Kelly R (Reed).; Brett, Patrick; Byron, Shawn; Conti,Jim (GSS); Higgins, Jamie A. (Fiore); Kellogg, James; Mariani, Fabio; McWilliams, Kelly; Modlin, Igor; Rosenbloom, Sam J; Santina, David; Shea, Jim

Subject: FW: Quadriserv Welcomes Additional Member Firms to the AQS Securities Lending Market

assume u guys saw this already a client sent to me.



William Conley



Kathy Rulong

In March 2015, Defendants agreed that “*Bilateral trading model must be maintained*”

CCP Working Group (2nd Meeting)

18 March 2015

Attendees:

BlackRock:	Phil Todd, Gavin Sweeney
BAML:	Derrick Cusick, Tom Serpe
Credit Suisse:	Ralph Sutter
Goldman Sachs:	Gary Klahr, Igor Modlin
JPMC:	Peter Atkinson
JPMS:	BJ Marcoullier, Joe Noto
Morgan Stanley:	Susan O'Flynn, Dave Richards
Northern Trust:	Kristin Missil
State Street:	Susan Foley, Scott Olson
UBS:	Bill Bane
EquiLend:	Brian Lamb (CEO), Paul Nigrelli (CFO), Laurence Marshall (COO), Tim Keenan, Nicole Giffuni, Dow Veeranarong

CCP - CORE PRINCIPLES OF CCP MODEL

1. Bilateral trading model must be maintained
2. Agent lenders must remain as agents
3. There should be no free riding (margin proportional to risk)
4. Stringent lender credit monitoring and acceptance by the CCP
5. Netting opportunity should be maximized
6. CCP should include equities and fixed income
7. Contractual relationship between user and CCP must be clear
8. Must support cash and non-cash collateral (not necessarily within same CCP)
9. Lenders must maintain cash collateral reinvestment capability
10. Must support lender right of substitution of loans / multi-allocation capability
11. Must have universally accepted processes for returns/recalls, rerating, buyins, billing
12. Must efficiently process and guarantee user elected corporate actions
13. Want to encourage the development of multiple CCPS in market
14. The CCP model must work with EquiLend
15. Economics of the model must work



Defendants “*agreed to preserve the bilateral pricing model*” against threats posed by new entrants, including Quadriserv (AQS) and SL-x



ECF No. 414-7 (Gemelli Tr.), at 411:21-414:11

Impact

Plaintiffs are capable of proving Class-wide impact using common proof.

Plaintiffs' experts are leading financial economists



Dr. Haoxiang Zhu

- Director of SEC's Division of Trading and Markets (eff. Dec. 10, 2021)
- Professor of Finance at the MIT Sloan School of Management (former)



Prof. Parag Pathak

- Professor of Economics at the MIT Sloan School of Management
- 2018 John Bates Clark Medal (best American economist under 40)



Prof. Paul Asquith

- Professor of Finance at the MIT Sloan School of Management
- Author of foundational research on the impact of transparency in OTC markets

Defendants' experts are different



Prof. Terrence Hendershott

- Financial economist, whose academic work on corporate bonds market supports *Plaintiffs'* position in this case.



Prof. Justin McCrary

- Law professor, and prolific defense expert (45 litigation engagements in past four years).
- Never a finance professor; never published on OTC market structure.

***First*, Dr. Zhu explains why Defendants' conspiracy would have Class-wide impact**



Dr. Haoxiang Zhu

Economic theory demonstrates that the OTC structure of the market imposes market-wide harms on Class members

Anonymous multilateral trading was economically viable by January 1, 2012

The introduction of multilateral trading platforms would have benefited all or virtually all Class members

Additional price transparency would also have benefitted all Class members

Profs. Pathak and Asquith independently explain why economic theory supports Class-wide impact

FIGURE IV.1
STOCK LOAN MARKET EQUILIBRIUM

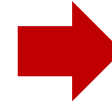
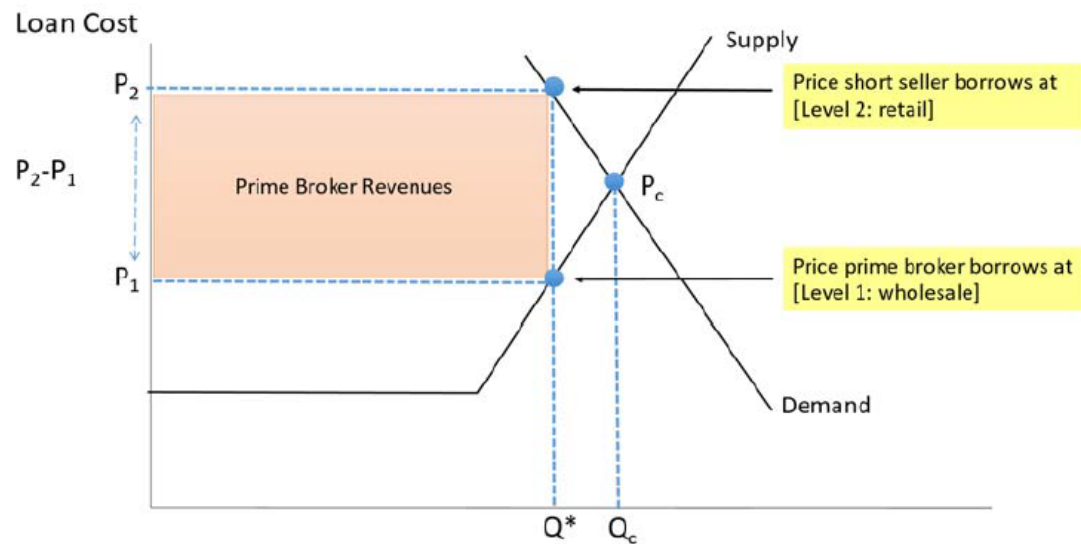
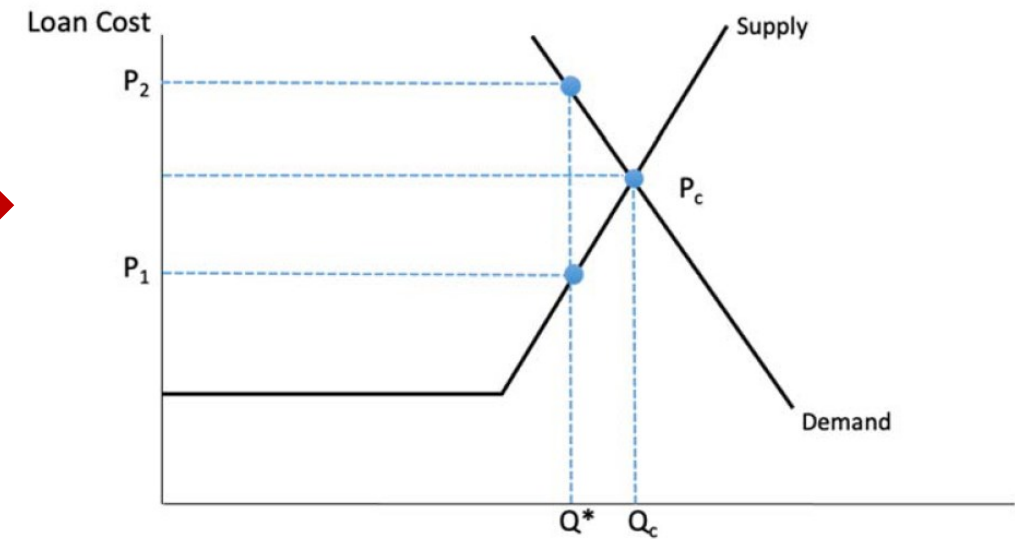


FIGURE IV.2
COMPETITIVE MARKET EQUILIBRIUM



ECF No. 414-10 (Asquith/Pathak Report), Figures IV.1 & IV.2

***Next*, Dr. Zhu applies a series of economic and quantitative tests to his baseline economic theory of Class-wide impact**

Economic search model of how dealer prices respond to platform entry

Yardstick analysis of other financial markets

Quantitative analysis of AQS trading data

Dr. Zhu's methodology is well accepted, as the *Olean* decision demonstrates

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT	
OLEAN WHOLESALE GROCERY COOPERATIVE, INC., BEVERLY YOUNGBLOOD, PACIFIC GROSERVICE, INC., DBA Pitco Foods, CAPITOL HILL SUPERMARKET, LOUISE ANN DAVIS MATTHEWS, JAMES WALNUM, COLIN MOORE, JENNIFER A. NELSON, ELIZABETH DAVIS-BERG. LAURA	No. 19-56514 D.C. No. 3:15-md-02670- DMS-MDD OPINION
Argued and Submitted En Banc September 22, 2021 Pasadena, California Filed April 8, 2022	

After examining the economic structure of the tuna market and the available record evidence concerning the Tuna Suppliers' behavior, Dr. Mangum determined that the packaged tuna market was conducive to price-fixing, given the Tuna Suppliers' dominance in the market, the attendant barriers to entry for competitors, the Tuna Suppliers' use of price lists for their products, and other characteristics of the packaged tuna industry. According to Dr. Mangum, these findings supported a baseline economic theory that the Tuna Suppliers' collusive behavior would affect the DPPs on a class-wide basis. Dr. Mangum then used a number of different econometric tools to evaluate whether quantitative evidence supported this theory.¹⁵

Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, 2022 WL 1053459, at *11 (9th Cir. Apr. 8, 2022)

Dr. Zhu tests his impact theory with an *economic search model*, applying work published in a leading journal of financial economics

The Journal of FINANCE

The Journal of THE AMERICAN FINANCE ASSOCIATION

THE JOURNAL OF FINANCE • VOL. LXXII, NO. 5 • OCTOBER 2017

Benchmarks in Search Markets

DARRELL DUFFIE, PIOTR DWORCZAK, and HAOXIANG ZHU*

ABSTRACT

We characterize the role of benchmarks in price transparency of over-the-counter markets. A benchmark can raise social surplus by increasing the volume of beneficial trade, facilitating more efficient matching between dealers and customers, and reducing search costs. Although the market transparency promoted by benchmarks reduces dealers' profit margins, dealers may nonetheless introduce a benchmark to encourage greater market participation by investors. Low-cost dealers may also introduce a benchmark to increase their market share relative to high-cost dealers. We construct a revelation mechanism that maximizes welfare subject to search frictions, and show conditions under which it coincides with announcing the benchmark.

This paper won First Prize for best *Journal of Finance* paper in 2017.

Cited in ECF No. 414-9 (Zhu Report), ¶ 258

Dr. Zhu's model found that increasing market transparency in opaque OTC markets can yield *widespread benefits* for traders



II. A Model of Benchmarks as a Transparency Tool

This section describes a search-based model of an OTC market, the equilibrium behavior of market participants, and its efficiency properties. The main results compare the social surplus generated by a market that includes a benchmark with that of a market that does not include a benchmark but is otherwise identical. This section addresses the case of homogeneous dealers' costs. Section III introduces heterogeneity in dealers' costs, allowing for an effect of benchmarks on matching efficiency.

V. Concluding Remarks

In the absence of a benchmark, traders have no information other than their own search costs and what they learn individually by "shopping around" for an acceptable quote. Dealers exploit this market opaqueness in their price quotes. Adding a benchmark alleviates information asymmetry between dealers and their customers. We provide naturally motivated conditions under which the publication of a benchmark raises expected total social surplus by encouraging greater market participation by buy-side market participants, by improving the efficiency of matching, and by reducing wasteful search costs.

Applied to this case, Dr. Zhu's model shows that, *when search costs go down for some Class members, prices improve for all*



Expert Report of Haoxiang Zhu

February 22, 2021

275. Once multilateral trading is introduced, μ will increase as more customers have access to the platform. To model the interim state after a platform is introduced but before equilibrium is reached, I use $\mu = 0.50$ in the but-for world, which represents an additional 22% (on top of the initial 28%) of traders becoming fast traders.

261. Even under these conservative assumptions, my model shows that *all or virtually all* class members benefit from the introduction of a platform, whether or not they actually use the platform in the but-for world and whether or not they are sophisticated in the real world. This holds true even when a relatively small portion of class members actually begin using the platform.

Dr. Zhu's results show that *all Class members benefit* from platform entry

Data (all in bps)				Model input (all in bps)					Model implications (all in bps)						
				(L1+L2)/2 Multi-prime Calibrated Not critical					Bid-ask spread						
	L1 price	L2 price	Spread		c	mu	s	v	price range	E(p, slow)	E(p, fast)	E(p, all)	For all	For slow	For fast
Cold	8.6	30.2	21.6	Actual world	19.4	0.28	2.51 bps	>34.4	[23.05, 34.39]	31.88	25.85	30.19	21.58	24.96	12.9
				But-for world	19.4	0.5	2.51 bps	>34.4	[20.51, 29.39]	26.88	21.91	24.4	10	14.96	5.02
				Spread compression ->											53.66%
Warm	16.5	40.7	24.2	Actual world	28.6	0.28	2.81 bps	>45.38	[32.68, 45.38]	42.57	35.83	40.68	24.16	27.94	14.46
				But-for world	28.6	0.5	2.81 bps	>45.38	[29.84, 39.79]	36.98	31.41	34.19	11.18	16.76	5.62
				Spread compression ->											53.73%
Hot	331.7	440.8	109.1	Actual world	386.25	0.28	12.7 bps	>462.11	[404.70, 462.11]	449.41	418.91	440.87	109.24	126.32	65.32
				But-for world	386.25	0.5	12.7 bps	>462.11	[391.87, 436.81]	424.11	398.95	411.53	50.56	75.72	25.4
				Spread compression ->											53.72%

lower transaction costs for end users. Those who use the platform benefit directly from the enhanced competition, and those who stay OTC benefit from the price discipline imposed by the platform, whether they are sophisticated customers with perfect information or not. Using conservative assumptions, the model shows customers of all types benefit—customers that transition from “slow” to “fast”, customers that remain “fast”, and customers that remain “slow.”

Notably, Prof. Hendershott *does not directly address* Dr. Zhu's economic search model

Having provided comments on the paper, Prof. Hendershott knows the model has economic support



*Darrell Duffie is with Stanford University Graduate School of Business and NBER. Piotr Dworczak is with Stanford University Graduate School of Business. Haoxiang Zhu is with MIT Sloan School of Management and NBER. We are grateful for helpful discussions with and comments from Bruno Biais (Editor), two anonymous referees, Ana Babus, David Bowman, Gregory Connor, Willie Fuchs, Will Gornall, Brett Green, Terry Hendershott, Gustavo Manso, Konstantin Milbradt, Paul Milgrom, Jose Moraga-Gonzalez, Marzena Rostek, Ali Shourideh, Andy Skrzypacz, Chester

Instead, Defendants' criticisms are made by Prof. McCrary, *a law professor with no relevant academic experience* with OTC market structure issues.

Dr. Zhu's model is capable of showing that the Class suffered impact notwithstanding Prof. McCrary's critiques

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

OLEAN WHOLESALE GROCERY
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SUPERMARKET, LOUISE ANN DAVIS
MATTHEWS, JAMES WALNUM, COLIN
MOORE, JENNIFER A. NELSON,
ELIZABETH DAVIS-BERG, LAURA

No. 19-56514

D.C. No.
3:15-md-02670-
DMS-MDD

OPINION

Argued and Submitted En Banc September 22, 2021
Pasadena, California

Filed April 8, 2022

class members. In other words, the district court determined that Dr. Mangum's pooled regression model was *capable* of showing that the DPP class members suffered antitrust impact on a class-wide basis, *notwithstanding* Dr. Johnson's critique. This was all that was necessary at the certification stage. The DPP class did not have to "first establish that it will win the fray" in order to gain certification under Rule 23(b)(3). *Amgen*, 568 U.S. at 460. Nor is this a case such as *Ellis*, in which the court had to resolve a dispute regarding an issue of historical fact in order to determine whether the challenged discriminatory conduct could affect a class as a whole. *See* 657 F.3d at 983. There is no factual dispute that the Tuna Suppliers engaged in a price-fixing scheme affecting the entire packaged tuna industry nation-wide.

Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, 2022 WL 1053459, at *18 (9th Cir. Apr. 8, 2022)

As Air Cargo explains, expert testimony “need not be flawless or impenetrable”

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

-----X
IN RE AIR CARGO SHIPPING SERVICES
ANTITRUST LITIGATION

MDL No. 1775

Master File No. 06-MD-1175 (JG)(VVP)

ALL CASES

-----X
REPORT AND RECOMMENDATION

Pohorelsky, M.J.

In summation, it appears that the task presented by a “battle of the experts” in the Rule 23(b)(3) context is one of determining whether the plaintiff’s expert testimony is evidence that is (1) common to the class; (2) methodologically capable of addressing the question it seeks to answer; and (3) substantially probative of the issue, enough so that a reasonable factfinder could rely on it in part to resolve the case on the merits. The testimony need not be flawless or impenetrable—indeed, almost no testimony ever is—and the factfinder will ultimately weight the testimony accordingly. At the class certification stage, however, the expert testimony must simply provide a reliable basis upon which to determine that the putative class’s claims are best served by class treatment. If this requires the Court to acquaint itself with complex and unfamiliar disciplines, so be it; otherwise, by what right could it expect a jury to do so?

Finally, expert testimony need not shoulder the plaintiffs’ burden alone. Instead, this testimony should be viewed in conjunction with the plaintiff’s other evidence. *In re Titanium Dioxide Antitrust Litig.*, 284 F.R.D. 328, 345-48 (D. Md. 2012) (Plaintiff’s “plausible” expert testimony, taken together with evidence of simultaneous price increase announcements, structural industry analysis, and plaintiff’s argument that increased price announcements bolstered defendants’ bargaining position was enough to show common impact); *In re EPDM*, 256 F.R.D. at 90.

In re Air Cargo Shipping Servs. Antitrust Litig., 2014 WL 7882100, at *43 (E.D.N.Y. Oct. 15, 2014)

Prof. McCrary's criticisms are unsupported and unpersuasive

²⁹⁶ Zhu Report, ¶¶ 265–266 (“Slow customers are those who currently have a single prime broker but have the option to incur search costs and trade with other dealers. Fast customers are those who get access to all dealer quotes simultaneously.”). Dr. Zhu claims that “[t]his way of modeling is standard in the economics literature of search, as discussed more extensively by Duffie, Dworczak, and Zhu.” I agree with Dr. Zhu that search models and mixed strategies such as those in Duffie, Dworczak, and Zhu (2017) are commonly used in the economic literature on search, but they are not applicable to OTC stock lending and shorting services. As is noted in that article, many of the features of these models are chosen for “tractability” (that is, ease of theoretical modeling) rather than accuracy to a particular product market. *See* Duffie, Darrell, Piotr Dworczak, and Haoxiang Zhu, “Benchmarks in Search Markets,” *The Journal of Finance*, Vol. 72, No. 5, 2017, pp. 1983–2044 at pp. 1989, 1990, 1991, 1995, 2013.

Prof. McCrary *does not cite a single economic paper* to support his assertion that the search model is “*not applicable to OTC stock lending and shorting services.*”

In fact, financial economists *have* applied Dr. Zhu's model to OTC stock lending markets to study how market changes impact traders

Price transparency in OTC equity lending markets:

Evidence from a loan fee benchmark*

Fábio Cereda,¹ Fernando Chague,² Rodrigo De

Alan Genuaro,³ Bruno Giovannetti⁴

February 16, 2021

Abstract

We study the effects of a price transparency shock in the Brazil market, an over-the-counter market. Previously, the available loan fee benchmark was the mean loan fee of the past 15 trading days. On March 1, 2011, reduced to 3 days, significantly improving short sellers' ability to pay fees. We find that after the benchmark change, loan fees fell, lending total lending revenue remained stable, high-cost lenders lost market efficiency increased. Our results suggest implementing price benchmark can improve market quality.

JEL Codes: G12, G14, G19.

Keywords: price transparency, OTC markets, benchmarks, spreads.

*We thank Bill Scherer (the Editor) and an anonymous referee for very constructive comments. We also thank Ricardo Boscaglia, Bruno Fomun, Marcelo Fernandes, Bernardo Gama, Felipe Jardim, João Manoel Pado de Mello, Delane Silva, Vladimir Ponomarev, and at São Paulo School of Economics (ECON) and the XIII Brazilian Meeting for their useful comments. We gratefully acknowledge financial support from CNPq.

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³Department of Economics, University of São Paulo, Brazil. E-mail: dalgenuaro@econ.usp.br

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The theoretical implications in DDZ for OTC markets naturally extend to the equity lending market. The equity lending market is an OTC market which has been characterized as a market where short-sellers have to search for security lenders to borrow shares (see, for instance, Duffie et al., 2002, for a dynamic model of the securities market). Additionally, short-sellers face non-negligible search costs in the equity lending market, which can be particularly high for some stocks and for poorly connected investors (see Chague et al.,

It is *impossible* for Prime Brokers to selectively deprive Class members of the benefits of platform entry



Prof. Parag Pathak

53. But the economic literature is clear that absolute, perfect knowledge is required for this principle to apply. In a more realistic scenario, which is relevant for the stock loan market, there is imperfect information about a trader's valuation or imperfect information about their outside option. In such a situation a bargainer is not able to extract all of the surplus from the trade. In fact, the celebrated Myerson-Satterthwaite theorem,⁷⁹ a cornerstone of information economics and central to Roger Myerson's 2007 Nobel Prize in Economics,⁸⁰ shows that when there is uncertainty regarding the valuation of traders, there is no way to always guarantee efficient exchange in bilateral trading. That is, a prime broker cannot extract all of the surplus from the trade under any bargaining protocol if a prime broker does not know the short seller's willingness-to-pay for a stock loan with complete certainty.

Dr. Zhu's *yardstick analyses* further validate his conclusions of Class-wide impact

and where the conspiracy had no influence. If marketwide benefits occurred in those markets, it is likely that marketwide benefits would occur in the stock lending market as well. As detailed below, every comparable market that I studied had marketwide benefits for all or virtually all traders in the market. Most importantly, the market for U.S. equities, which I find the most comparable, in particular had marketwide benefits brought about by the introduction of electronic trading platforms.

Dr. Zhu's first yardstick is *the stock market*—"the most comparable market available for analysis"

(a) Stock Market

292. In connection with my analysis of why “Anonymous Multilateral Trading in the United States Stock Lending Market Would Have Made Economic Sense,” *see supra* Section V.B.1, I explain why the equities (stock) market is comparable to the stock loan market. In short, the stock market and the stock loan market transfer similar risks: the risk that stock prices go up and down. Both markets have high trading volumes per day. And these two markets are also tightly linked in the sense that short selling, which is conducted in the stock market, is preceded by borrowing shares in the stock loan market. As a final point, the markets are also comparable in the sense that the equities market was also subject to an antitrust conspiracy among market intermediaries, and when that conspiracy was removed and the market was allowed to evolve naturally, all stock traders benefitted. Ultimately, the stock market is the *most* comparable market available for analysis.

Prof. Hendershott found that “the option” to trade corporate bonds on a platform improved prices by at least \$2 billion a year

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Click or Call? Auction versus Search in the Over-the-Counter Market

TERRENCE HENDERSHOTT and ANANTH MADHAVAN*

ABSTRACT

Over-the-counter (OTC) markets dominate trading in many asset classes. Will electronic trading displace traditional OTC “voice” trading? Can electronic and voice systems coexist? What types of securities and trades are best suited for electronic trading? We study these questions by focusing on an innovation in electronic trading technology that enables investors to simultaneously search many bond dealers. We show that periodic one-sided electronic auctions are a viable and important source of liquidity even in actively traded instruments. These mechanisms are a natural compromise between bilateral search in OTC markets and continuous double auctions in electronic limit order books.

OVER-THE-COUNTER (OTC) markets are characterized by off-exchange, bilateral negotiations with dealers. This traditionally telephone- and voice-based market structure dominates trading in many asset classes: foreign exchange, spot commodities, nonstandard derivatives, and corporate and municipal bonds. As electronic trading volumes have increased across all asset classes, the market structure transition referred to as “voice to electronic” has attracted considerable interest. Will electronic trading inevitably displace traditional OTC trading? Or, can electronic and voice systems coexist, and if so for what types of securities and what types of trades? Further, how valuable is the ability to source liquidity electronically? We examine these questions using data for all 4.6 million corporate bond transactions in U.S. corporate bonds from January 2010 through April 2011. Our data identify and detail those transactions executed in an electronic auction market where investors can simultaneously search many bond dealers.

The \$8 trillion corporate bond market is of particular interest because of its size and importance in capital formation. Recent regulatory requirements

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A simple economic model of endogenous venue selection facilitates comparing transaction costs and other market quality measures across voice and electronic mechanisms. Trading via an auction increases dealer competition, resulting in better prices. However, revealing trading intentions to many potential coun-

Our results indicate that electronic auction markets are a viable and important source of liquidity even in inactively traded instruments, although the benefits are concentrated in the most liquid bonds and in the easiest trades. Auction-like systems may add considerable value in liquid fixed income products such as to-be-announced (TBA) mortgage-backed securities. Overall, we estimate that the option to trade corporate bonds in an electronic auction improves prices with an annual savings of \$2 billion. This figure is likely to increase over time and represents a transfer from dealers to the ultimate investors in these bonds.

In this case, Prof. Hendershott tries to *obscure the significance* of his own academic findings



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In other words, the calculation assumes that the default mechanism is OTC and asks how much could be gained from trading at a lower-cost auction if optimal. This calculation is conservative because the resulting value ignores the possible impact of auction competition on dealer quotes in the OTC market and further excludes any gains from the ability to trade more. Summing across all trade-size ranges yields the aggregate value of the auction mechanism.

Overall, we estimate that the auction mechanism could result in potential cost savings of at least \$2 billion per annum on \$1.4 trillion in trading volume. These savings should be reflected in higher realized investment returns to the ultimate investors of the bonds. Again, this is a conservative annual estimate and is likely to grow over time as the range of order sizes over which the electronic auction mechanism dominates increases. Note that there are clear differences in the drift term coefficient between investment-grade and high-yield bonds, with the former positive and significant and the latter insignificant. One would expect such discrepancies because of differences in trading convention and more liquid bonds may well have greater loadings on the aggregate bond market, that is, less idiosyncratic noise.

The SEC relies on the changes in the corporate bonds market to predict the benefits of stock loan reforms

Conformed to Federal Register version

SECURITIES AND EXCHANGE COMMISSION

17 CFR Part 240

[Release No. 34-93613; File No. S7-18-21]

RIN 3235-AN01

Reporting of Securities Loans

AGENCY: Securities and Exchange Commission

ACTION: Proposed rule.

SUMMARY: The Securities and Exchange Commission ("Commission" or "SEC") is proposing a rule to increase the transparency and efficiency of the securities lending market by requiring any person that loans a security on behalf of itself or another person to report the material information of those securities lending transactions and related information regarding the securities that person has on loan and available to loan to a registered national securities association ("RNSA"). The proposed rule would also require that the RNSA make available to the public certain information concerning each transaction and aggregate information on securities on loan and available to loan.

DATES: Comments should be received on or before January 7, 2022.

ADDRESSES: Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's internet comment form (<https://www.sec.gov/regulatory-actions/how-to-submit-comments>); or
- Send an email to rule-comments@sec.gov. Please include File Number S7-18-21 on the subject line.

Paper comments:

¹ See *infra* Part II.B. The corporate bond and municipal securities markets are now more transparent and efficient markets. The regulatory concerns that led to these transformations included the lack of publicly available pricing information, which is similar to the concerns that would be addressed by proposed Rule 10c-1. The changes to these markets have provided investors with greater pricing transparency, lower search costs and greater price competition. See, e.g., LOUIS LOSS, JOEL SELIGMAN & TROY PAREDES, *Chapter 7.A.2 – Bond Trading*, in *FUNDAMENTALS OF SECURITIES REGULATION* (6th ed. Supp. 2021). See also Interim Report of the Financial Stability Board Workstream on Securities Lending and Repos, *Securities Lending and Repos: Market Overview and Financial Stability Issues*, at 14 (Apr. 27, 2012), available at https://www.fsb.org/wp-content/uploads/r_120427.pdf.

Foreign stock loan markets *support Dr. Zhu's conclusions*

Taiwan: Local borrowers and lenders *prefer* the exchange mechanism

Korea: Local borrowers and lenders *prefer* centrally cleared stock loans

India: The National Stock Exchange of India implemented a widely-used exchange trading mechanism for stock loans (with automated recall protection)

Brazil’s stock lending experience also supports Plaintiffs’ showing of Class-wide impact



Well-connected short-sellers pay lower A market-wide analysis[☆]

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ABSTRACT

High loan fees generate :
Despite the importance of
Using a market-wide deal
uniquely identifies borrow
search costs at the borrow
same day—borrowers with
suits suggest that regulato
reduce search costs in the

1. Introduction

A short-seller is constrained if the loan fee exceeds the expected fall in the stock price. High loan fees therefore generate short-selling constraints. Short-selling constraints are not desirable for two reasons: they cause stock overpricing (Danielsen and Sorensen, 2001; Jones and Lamont, 2002; Nagel, 2005; Chang, Cheng and Yu, 2007; Stambaugh, Yu and Yuan, 2012; Blocher, Reed and Van Wesepe, 2013) and they reduce price efficiency

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High loan fees generate short-selling constraints and, therefore, reduce price efficiency. Despite the importance of loan fees, empirical evidence on their determinants is scarce. Using a market-wide deal-by-deal data set on the Brazilian equity lending market which uniquely identifies borrowers, brokers, and lenders, we are able to construct a proxy of search costs at the borrower–stock–day level. We find that—for the same stock, on the same day—borrowers with higher search costs pay significantly higher loan fees. Our results suggest that regulators should encourage the use of a centralized lending platform to reduce search costs in the lending market.

(English) *Journal of Financial Economics* 123 (2017) 646–670
wal, Kolasinski and Reed, 2007; Saffi and Sigurdsson, 2011; Engelberg, Reed and Ringgenberg, 2012; Boehmer and Wu, 2013). Despite these adverse effects of loan fees on the stock market, there is sparse empirical literature on the determinants of loan fees, mostly due to lack of data.¹ In this paper we use a unique data set to show that loan fees depend on borrower search costs.

Loan fees should be close to zero in a frictionless lending market with many lenders. Lenders have long investment horizons and do not care about short-term variations in stock prices (D’Avolio, 2002), so that lending a stock for a short period is costless. Competition among lenders

¹ The equity lending market in the US and other countries is over-the-counter (OTC), with transactions usually only visible to the parties involved. As we discuss below, although the Brazilian lending market is also OTC, all loan deals must be registered at B3/B3FBOVESPA, which acts as the central counterpart. In this paper we use the B3/B3FBOVESPA market-wide data.

Dr. Zhu concludes that the limited trading on AQS during the conspiracy further supports Class-wide impact

TABLE VII.6
AQS PRICES COMPARED TO LEVEL 2 PRIME BROKER PRICES

Year	<u>AQS Price < Maximum PB Level 2 Price</u>		<u>AQS Price < Weighted Average PB Level 2 Price</u>	
	% of AQS Loan-Days	% of AQS Notional Amount	% of AQS Loan-Days	% of AQS Notional Amount
2010	71.1%	92.9%	50.6%	80.4%
2011	72.3%	93.8%	59.5%	83.9%
2012	86.6%	96.6%	78.9%	91.3%
2013	91.5%	97.1%	85.1%	91.7%
2010-2013	82.9%	95.6%	72.1%	88.0%
2010-2017	83.8%	95.4%	73.1%	87.1%

Borrowers *paid less* to borrow on AQS than the OTC market for *over 95% of trades*

TABLE VII.8
AQS PRICES COMPARED TO LEVEL 1 PRIME BROKER PRICES

Year	<u>AQS Price > Minimum PB Level 1 Price</u>		<u>AQS Price > Weighted Average PB Level 1 Price</u>	
	% of AQS Loan-Days	% of AQS Notional Amount	% of AQS Loan-Days	% of AQS Notional Amount
2010	92.6%	88.2%	76.6%	62.6%
2011	92.4%	85.3%	78.5%	60.8%
2012	84.9%	77.8%	63.3%	46.7%
2013	85.2%	77.7%	59.9%	46.3%
2010-2013	87.5%	81.1%	67.0%	51.9%
2010-2017	87.0%	81.3%	64.2%	51.3%

Lenders *made more* to lend on AQS than the OTC market *over 81% of trades*

Defendants argue that Prime Brokers provide such valuable *“maturity transformation services”* that platforms could never thrive

Recall Protection



If a lender recalls the loan, the broker will substitute in a new counterparty

Rerate Protection



The broker protects the borrower from loan rates increasing

No economic literature supports their claims

The expert reports discuss *dozens* of detailed studies of the Stock Loan market.

Many discuss the role of the Prime Brokers specifically.

At his deposition, we let Prof. Hendershott read through entire articles on the record.

Not one says anything about Prime Brokers providing recall or rerate “protections.”



With massive volumes of data available to them, Defendants' experts rely on virtually none of it to support their claims

Recall protection:

Prof. Hendershott did *no* empirical work

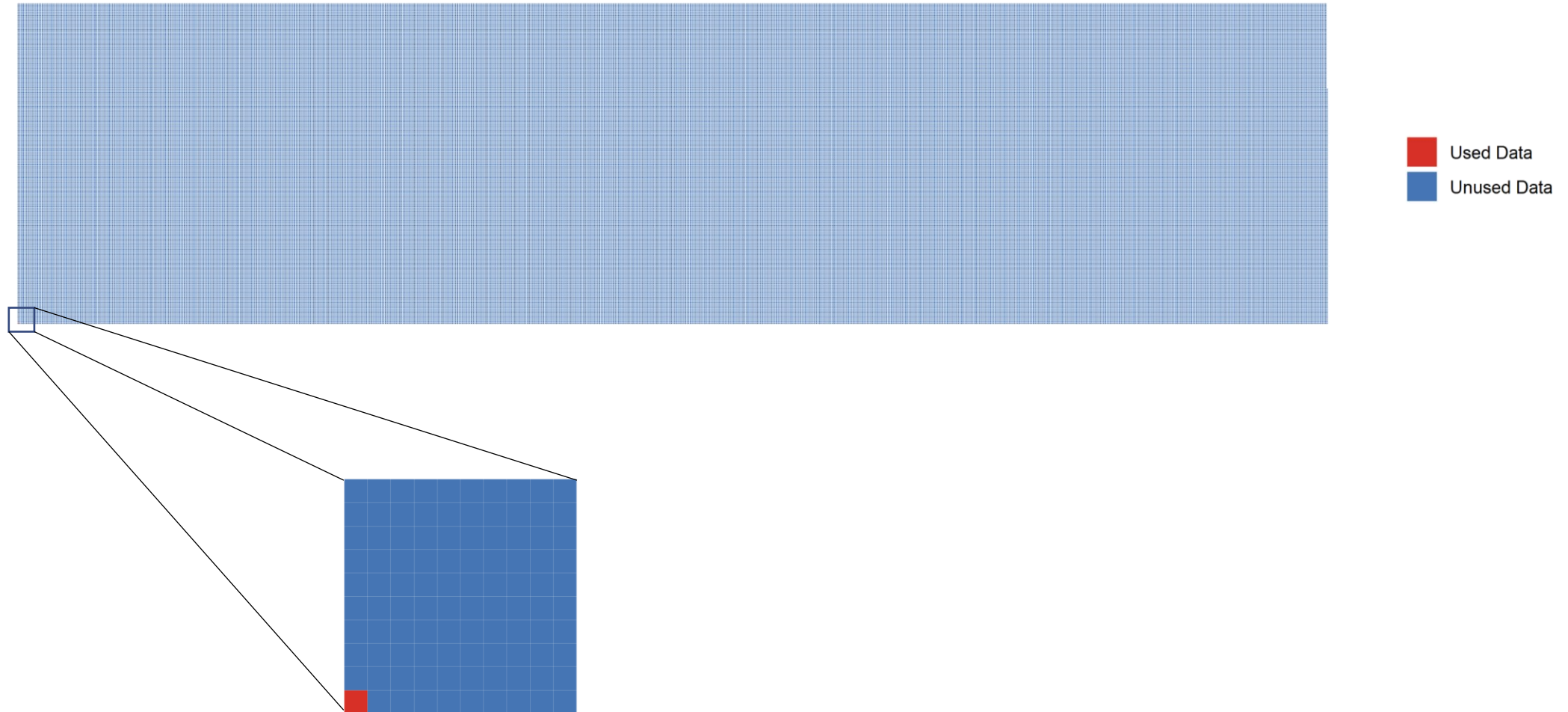
Prof. McCrary did a limited analysis of just two stocks: Zipcar and Blue Dolphin

Rerate protection:

Prof. McCrary did *no* empirical work

Prof. Hendershott did a limited analysis of just one stock: JCPenney

Defendants' experts present data for only **80 CUSIP-days** of the over **13 million** in the database



1 square = 80 CUSIP-Days

Defendants mainly rely on *ambiguous snippets from documents and self-serving declarations*

Declarations drafted “*for the specific purpose of opposing Plaintiffs’ class certification motion*” are of “*a diminished probative value.*”

In re High Tech Employee Antitrust Litig, 985 F. Supp. 2d 1167, 1216 (N.D. Cal. 2013)



I, **Thomas Wipf**, declare as follows:

1. **I am the Vice Chairman of Institutional Securities at Morgan Stanley.** Prior to being named Vice Chairman in December 2016, I was the Global Head of the Bank Resource Management (“BRM”) division at Morgan Stanley, a position I held since 2009. BRM is a division



I, **Michael W. Kelleher**, declare as follows:

1. **I am head of Americas Equity Finance within JPMorgan’s prime brokerage business. My responsibilities include oversight of JPMorgan’s securities lending and prime brokerage funding businesses.** I have worked in JPMorgan’s prime brokerage since June 2010.

ECF No. 432-43 (Kelleher Decl.), at p.2; ECF No. 423-55 (Wipf Decl.), at p.2

Defendants' supposed "industry experts" merely *recycle their self-serving declarations*



William Pridmore

87. Overall, the additional costs associated with transacting on an anonymous multilateral platform would have negatively impacted many beneficial owners, and deterred many lending agents and beneficial owners from transacting on such a platform.²⁰¹ In the case of AQS, these costs were actually a barrier to many lending agents' adoption of the platform on behalf of their beneficial owner clients, especially in light of the uncertainty surrounding the platform.²⁰² Costs and fees associated with an anonymous multilateral platform would have been a significant concern for smaller lending agents. Similarly, added costs would have been a particular concern for lending agents that lend substantial volumes of GC stock on behalf of their beneficial owner clients, given the relatively thin margins associated with GC lending.²⁰³ Accordingly, the extent to which those costs would have outweighed the benefits would depend on the individual circumstances of each lending agent's and beneficial owner's lendable assets, portfolio composition, reinvestment strategies, and other factors.

²⁰² See, e.g., Shellard Declaration, ¶¶ 12, 23.

Pridmore testified that he took Defendants' declarations "*at face value*," doing nothing to confirm their reliability. ECF No. 470-12, 62:15-63:9.

The bottom line on “recall protection”

At most, Prime Brokers provide a weak form of “recall protection,” by allowing clients to substitute a new loan for a recalled loan.

But Prime Brokers do *not* protect their clients from having to pay a higher rate for the new loan (this would be *rerate* protection).

This weak form of “recall protection” has little economic value, and can be (and is) provided by electronic platforms.

The Indian Stock Lending Exchange *provides automated recall protection*

307. The first table below shows that Indian stock loans are traded on platforms and centrally cleared. Moreover, users can submit orders to repay (return) and recall shares, in addition to lending and borrowing.

Trading, Clearing & Settlement

Product Specifications

Particulars	Description
Platform	Automated screen based trading
Clearing	Settlement Guarantee by NSCCL
Market timings	9.15 am-3.30 pm (in line with Equities Market)
Order Types	Lend, Borrow, Recall & Repay
Trade Price (Quotes)	Lending Fees per Share
Tenures (Series)	12 Monthly contracts (*Rollover permitted)
Settlement	1st Leg: T+1; Reverse Leg: 1st Thursday of the month of the respective series
Last trade day	3 days prior to settlement day
Eligible Securities	All F&O securities + eligible Non F&O securities + Eligible Index ETF's

308. The second table below shows explicit steps for repay (return) and recall, which are permitted anytime. Importantly, the NSE of India explicitly recognizes that the economics of recalling is similar to borrowing, and that the economics of repaying (returning) is similar to lending. Under NSE’s design, the lender that initiates the recall is, in fact, initiating a new borrowing transaction elsewhere. That is, a borrower’s shares are not recalled until the borrower wishes to return the shares or the contract expires, whichever happens earlier. This is an exchange-based mechanism of “recall protection.”

Recall & Repay Facility

Lender	Borrower
• Permitted to recall before the expiry	• Permitted to repay before expiry
• First step is to enter recall transaction in terminal at market determined rate	• First step is to make early repayment of securities to NSCCL A/c. Margin will be released instantly
• Lender’s TM need to specify it as “Recall”	• Borrower’s TM need to specify it as “Repay”
• Market will view the transaction as regular borrow transaction	• Market will view the transaction as regular lend transaction
• Custody confirmation required	• Custody confirmation not required
Settlement of fee as well as securities happen on T+1 day	
On successful recall / repay, existing positions are closed & investors have no obligation to settle on expiry day	

The bottom line on “rerate protection”

Defendants were unable to prove that Prime Brokers provide it *in any form*

Prof. Hendershott presented two charts, of JCPenney stock in Q3 2017

He claimed his “*visual inspection*” of the charts showed “*smoothing*” of rates



ECF No. 470-4 (Hendershott Tr.), 174:5-175:10

Plaintiffs' experts have shown that any “smoothing” identified by Prof. Hendershott actually made Class members *worse off*

34. The Hendershott Reply Report includes a new analysis of JCPenney positions that is different from what was presented in his opening Report.⁶¹ Now, rather than consider an entire quarter of positions, Dr. Hendershott analyzes trades during a shorter time period (August 15, 2017 to September 12, 2017). Similarly, instead of considering the loan costs for all short sellers, Dr. Hendershott highlights only five short sellers whose loan costs he believes to have been “smoothed.” Rather than compare the short selling loan costs to all lender loan costs, he compares them to the loan costs of only newly-initiated loans. Yet, even after limiting the data in this manner, his revamped analysis still fails to demonstrate “smoothing” is a valuable service to short sellers. Indeed, within the narrowed analysis there is evidence that short-seller clients are often worse off when prices are “smoothed.”



In the end, Defendants' arguments confirm *how opaque and inefficient* the OTC market is for Class members

Q. Let's say you started a hedge fund. How would you figure out what re-rate protection the prime brokers were offering and how much they charged for it?

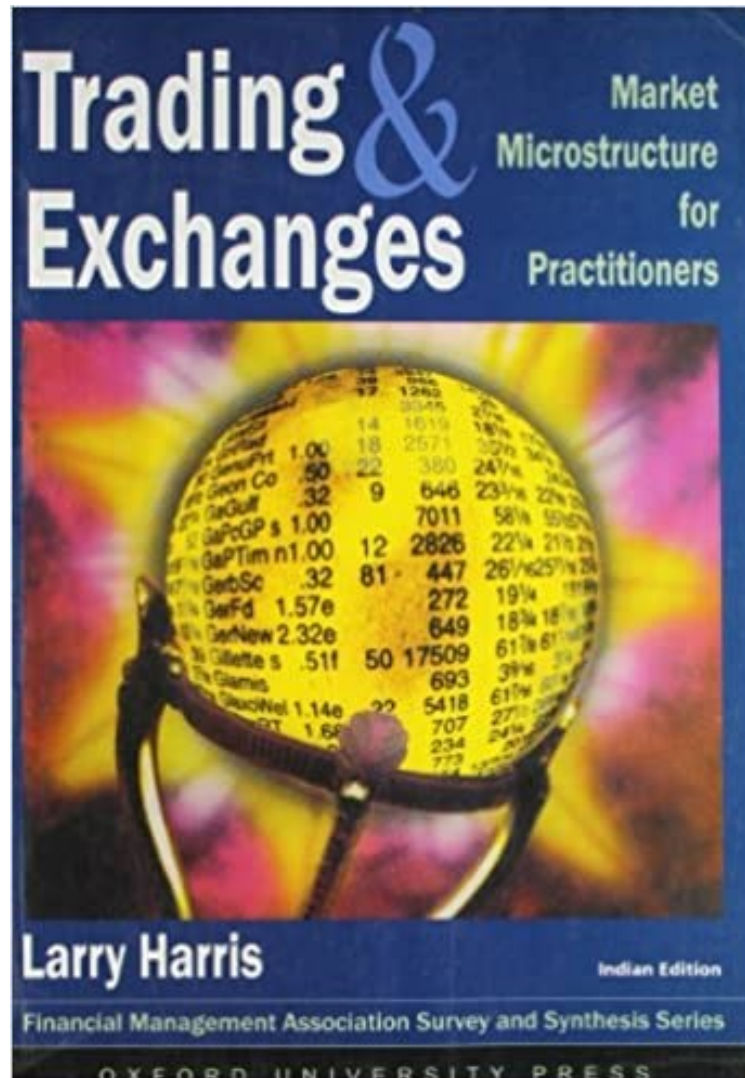
A. I would have to think about that for a while.

Q. How long do you need?

A. To give a precise answer, I would need a long time because that -- I would want to take some time to really think about it, how much banks charge for re-rate protection.



Defendants' argument that the OTC market would contract once a platform enters is refuted by Prof. Hendershott's own source



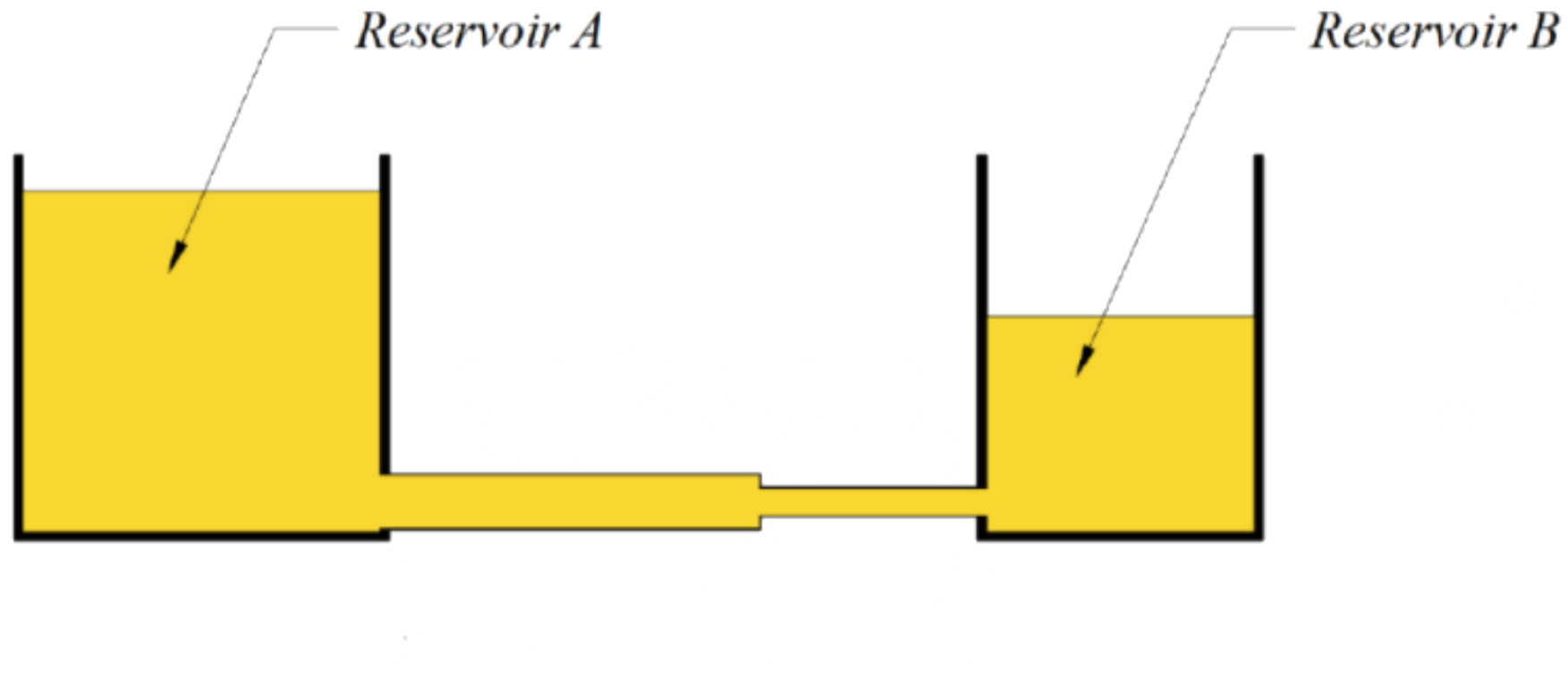
26.4 MARKET SEGMENTATION: HOW FRAGMENTED MARKETS CONSOLIDATE

The two preceding sections suggest that a trade-off may exist between the cost-reducing benefits of market consolidation and the service-enhancing benefits of market diversity. Within any given market structure, liquidity is greatest and transaction costs are lowest when all traders trade in that structure. All traders therefore want all other traders to trade in the market structure that they prefer. Differences among traders, however, cause them to prefer diverse market structures. Unfortunately, no single market best meets the service needs of all traders; thus, in many markets, a diversity of market structures has evolved to serve the various needs of different traders. The resulting fragmentation suggests that some of the cost-reducing benefits of market consolidation may be lost. In particular, regulators and practitioners fear that fragmented markets substantially increase transaction costs.

These concerns would be well founded if traders in various market fragments did not know about—and respond to—market conditions in other fragments. Each fragment then would constitute an isolated market in which price formation would take place independently of all other fragments. The resulting prices would depend only on market conditions within each fragment. Prices would not efficiently incorporate all available information about fundamental asset values because information in one fragment would not affect trading in other fragments. Transaction costs would be high because liquidity demands in one fragment could not meet liquidity supplies in other fragments. Traders thus would have to satisfy all liquidity demands separately within each fragment.

Market diversity, however, does not necessarily imply inferior price formation and high transaction costs. Traders can obtain the benefits of consolidation in fragmented markets when information flows freely between market fragments, and when some traders can choose which fragment in which to trade. These two conditions are sufficient to coalesce a fragmented market into a unified complex of diverse segments. The first condition ensures that traders know what is happening in each market segment. The second condition ensures that some traders can act on that information when prices or liquidity conditions diverge.

When “some traders can choose” where to trade, there are no negative “liquidity externalities”



Platforms give traders *more choices* for how to manage information leakage

OTC Prime brokers can use their unique access to information to benefit their own books, harming clients.

Exchanges display price and liquidity, *not* positions or identities.

Comparable markets show investors can easily protect competitive secrets in a platform trading environment.



are made transparent. In addition, large institutional investors have extensive experience in trading in transparent markets such as the U.S. stock market and have developed algorithms to minimize the risk that others can guess their identities based on trades. Finally, it is not obvious

Fundamentally, Class members were harmed by being denied *competitive choices and options*



"Competition benefits everyone, even those that participate in the legacy regime..."



"A world of choice is always better."



"We estimate *the option* to trade corporate bonds in an electronic auction improves prices with annual savings of \$2 billion."

ECF No. 470-1 (Zhu Reply Report), ¶ 54; ECF No. 470-2 (Asquith/Pathak Reply Report), ¶ 82; ECF No. 470-3 (Class Cert. Ex. 165)

Damages

Plaintiffs' burden is only to ensure damages “roughly reflect” the harm to the Class



Judge McMahon

“Although courts must carefully evaluate estimates to ensure that the experts’ methodology is **a just and reasonable** inference and not speculative, damages need not usually be demonstrated with precision.... Here, [Plaintiffs’ experts’] methodology and estimates are clearly sufficient to **roughly reflect** the level of damages incurred by the proposed class.”

In re Namenda Indirect Purchaser Antitrust Litig., 338 F.R.D. 527, 565 (S.D.N.Y. 2021)

Plaintiffs' burden for proving damages is "lightened"



Judge Cote

"Where the but-for price is uncertain, **the plaintiff's burden of proving damages is, to an extent, lightened**, for the wrongdoer shall bear the risk of the uncertainty which his own wrong has created."

In re Elec. Books Antitrust Litig., 2014 WL 1282293, at *17 (S.D.N.Y. Mar. 28, 2014)

Plaintiffs need only estimate aggregate Class-wide damages







Chief Judge Wood

“[A]t the class certification stage, **plaintiffs are not obliged to drill down and estimate each individual class member’s damages.** The determination of the aggregate classwide damages is something that can be handled most efficiently as a class action, and **the allocation of that total sum among the class members can be managed individually, should the case ever reach that point.**”

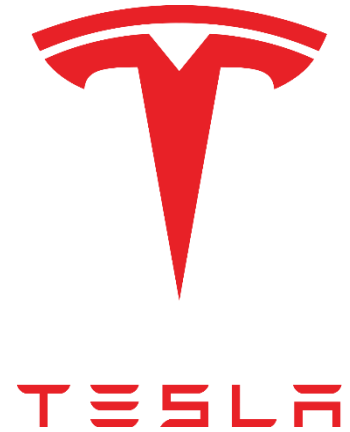
Kleen Prod. LLC v. Int’l Paper Co., 831 F.3d 919, 929 (7th Cir. 2016)

The Asquith/Pathak damages model calculates damages through a *common* methodology

Factor	Present?
Uses millions of data records from Class members' transactions?	
Common and formulaic?	
Just and reasonable estimate of aggregate damages?	
Can allocate damages to individual Class members?	

This model calculates damages on a per-transaction basis

As an example, take a transaction of Tesla on August 30, 2016, when the stock was hard-to-borrow.



Real-World Borrow Price:
1379 bps

—

But-for Borrow Price:
1235 bps

=

End-User Damages:
144 bps

But-for Lend Price:
1164 bps

—

Real-World Lend Price:
1099 bps

=

Beneficial Owner Damages:
65 bps

This damages model calculates large damages across the Class

Management Subclass	2012 - 2017 Damages	Class Period Damages
End-User Subclass	\$3,515,732,145	\$5,273,598,217
Beneficial Owner Subclass	1,500,166,746	2,250,250,118
Total	\$5,015,898,891	\$7,523,848,336

Defendants have not withdrawn from the conspiracy



Judge Brodie

“In general, upon joining a conspiracy, a **defendant’s membership in the ongoing unlawful scheme continues until he withdraws....** Unless a conspirator produces affirmative evidence of withdrawal, his participation in a conspiracy is presumed to continue until the last overt act by any of the conspirators.”

Barry's Cut Rate Stores Inc. v. Visa, Inc., 2019 WL 7584728, at *23 (E.D.N.Y. Nov. 20, 2019)

Nothing has changed...

Conformed to Federal Register version

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Paper comments:

The SEC's recent proposed rulemaking found that:

The market remains opaque

No multilateral trading platform has entered the market

No pre- or post-trade reporting of prices of transactions

De minimis client clearing

Reporting of Securities Loans, 86 Fed. Reg. 69803, 69803-4

Supplemental discovery to update the record is routine



Magistrate
Judge Scott

“Information is incomplete or incorrect in some material respect [under Rule 26(e)] if there is an objectively reasonable likelihood that the additional or corrective information could substantially affect or alter the opposing party's discovery plan or trial preparation.”

Gorzynski v. JetBlue Airways Corp., 2012 WL 712067, at *4 (W.D.N.Y. Mar. 5, 2012)



Magistrate Judge
Tomlinson

“Numerous cases within the Second Circuit hold that Rule 26(e) imposes a continuing obligation upon a responding party to supplement prior discovery responses based on later acquired information when the party learns of its existence and materiality.”

Dash v. Seagate Tech. (US) Holdings, Inc., 2015 WL 4257329, at *12 (E.D.N.Y. July 14, 2015)



Magistrate
Judge Fox

“The obligation to update and supplement responses [to discovery demands] continues even after the close of discovery.”

Shim-Larkin v. City of New York, 2020 WL 5534928, at *12 (S.D.N.Y. Sept. 14, 2020)

Defendants' effort to use damages estimates to disprove Class-wide impact fails legally and factually

Impact and damages are separate legal elements, and Plaintiffs' damages model does not disprove their separate evidence of Class-wide impact

Professor McCrary made blatant data input errors

The law is clear that netting is not necessary for assessing the element of impact

Impact and damages are separate legal prongs



“[C]ourts have distinguished the fact of injury from the amount of damages.”

Valassis Commc’ns, Inc. v. News Corp., 2019 WL 802093, at *11-12 (S.D.N.Y. Feb. 21, 2019)



Judge
Castel

INJURY/IMPACT?

- Are Class members **worse off** because Defendants’ conspiracy deprived the market of platform trading options?



DAMAGES?

- **How much** were Class members overcharged as compared to a hypothetical but-for world in which there was no conspiracy?

\$ 7+ BILLION

The Ninth Circuit saw through a similar defense playbook in *Olean*



Judge Ikuta

“At most, this critique supports the more attenuated argument that Dr. Mangum's model is unreliable, or would be unpersuasive to a jury. But the district court considered and resolved this methodological dispute between the experts in favor of Dr. Mangum by crediting his rebuttal that even class members with limited transactions during the class period can rely on the pooled regression model as evidence of impact on similarly situated class members. In other words, the district court determined that Dr. Mangum's pooled regression model was *capable* of showing that the DPP class members suffered antitrust impact on a class-wide basis *notwithstanding* Dr. Johnson's critique. This was all that was necessary at the certification stage.”

Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, 2022 WL 1053459, at *18 (9th Cir. Apr. 8, 2022)

The damages model employs simplifying, conservative assumptions to ensure a workable approach



Prof. Parag Pathak



Prof. Paul Asquith

10. Defendants' suggestion that "impact" could, or should, be shown through the transactional data available to us is misguided as an economic matter. As the conspiracy did not permit a robust anonymous multilateral stock loan trading platform to develop, no clean period of data is untainted by the conspiracy—i.e. data from the real world that would be informative about how stock loan trading platforms would have affected the market in the absence of the conspiracy. If, for example, the conspiracy had taken place from 2008-2013 and platform trading of stock loans became widespread thereafter absent a conspiracy, an economist could analyze the post-2013 market as a benchmark for what the 2008-2013 market would have looked like in the absence of the conspiracy. But here, we have been asked to assume that the conspiracy has not ended, an assumption that explains why stock lending trading platforms still are not available in the market. As an economic matter, the transactional data we use in our damages analysis undercounts the full impact of the conspiracy on class members, as a result of our conservative assumptions.

Professor McCrary includes *millions* of UBS records that *should be excluded under Plaintiffs' methodology*

Most of these records relate to UBS' Wealth Management business, not its Prime Brokerage business

About 95% of these records show a loan cost of zero, an economically irrational price

Thousands more are internal, UBS accounting records that have nothing to do with stock loans to borrowers

Under the logic of his own report, these transactions should have been excluded



2. Generally speaking, while I do not necessarily endorse their methodology for so doing, I compile the stock loan transactions and locate datasets replicating the data processing methodology Drs. Asquith and Pathak used to generate their Prime Broker Transactions Datasets, as reflected in their February 2021 computer code production, where applicable. There are, however, three exceptions. *First*, as Drs. Asquith and Pathak did not process transactions data produced by Bank of America, Credit Suisse, UBS, and SCERA, and did not process locate data, I process these data following similar processing principles to those described in Appendix C of Drs. Asquith and Pathak's report. *Second*, I correct Drs. Asquith and Pathak's processing of Goldman Sachs, JPMorgan, Morgan Stanley, and AQS transactions data for certain data processing errors, as I describe in more detail below. *Third*, I incorporate additional AQS data (*i.e.*, the AQS Trade Report data and AQS Return and Recall data) that Drs. Asquith and Pathak did not process into my analysis of AQS data.

Professor McCrary didn't know whether he excluded these transactions, but admitted that they should have been excluded

9 Q. Okay. So it's fair to say you don't
10 know one way or another whether 100 percent of
11 these DSS trades were included in your data
12 builds?

13 A. Sitting here right now, you know, you're
14 asking me about 12 records out of, you know,
15 millions, millions of observations. I don't
16 recall offhand the specifics of how I processed
17 that as to whether it's a hundred percent, which I
18 don't think is right actually, but it's possible
19 that it is. I'd have to go back and look.

3 Appendix C to be sure of this. I think it's right
4 that the four DSS records that you point out at
5 the top, those first four, that those would
6 correspond to records that would be excluded based
7 on the screens applied by Drs. Asquith and Pathak.



ECF No. 470-6 (McCrary Tr.) at 237:9-19, 241:17-242:7

Professor McCrary vastly inflates his alleged undamaged numbers in the End-User Subclass

Exhibit 11

DRS. ASQUITH AND PATHAK'S QUANTITATIVE MODEL ESTIMATES THAT MANY CLASS MEMBERS WERE UNHARMED

	Number Unharmed	Share Unharmed
Lender Accounts	1,225	30%
Short Seller Accounts	2,446	21%

When broken out by Prime Broker Defendant, Professor McCrary's error and its distorting effects are obvious

McCrary Method (Flawed Data, Netted)

Prime Broker Defendant	Number of Accounts Undamaged	% of Accounts Undamaged
Goldman Sachs	223	4%
Morgan Stanley	27	3%
JPMorgan	29	5%
Bank of America	46	7%
Credit Suisse	24	6%
UBS	2,096	61%
Pooled	2,445	21%

ECF No. 470-2 (Asquith/Pathak Reply Rpt.), Ex. IV.6

Professor McCrary *hid* his error by concealing the source for these records

Professor McCrary imported all the data necessary to detect his error

But his workpapers *exclude* the source field, necessary to detect his error

Sample Transactions from DSS Data (UBSSLDATA00010)							
BUS_DATE	CUSIP	SYMBOL	RATE	QTY	PRICE	REBATE	SOURCE
19-Mar-13	78462F103	SPY	0	500	154.61	0	DSS
20-Mar-13	78462F103	SPY	0	500	155.69	0	DSS
21-Mar-13	78462F103	SPY	0	500	154.359	0	DSS
22-Mar-13	78462F103	SPY	0	500	155.6	0	DSS
2-Jan-12	464287655	IWM	-0.0125	14528	73.75	-37.2028	ADP
2-Jan-12	464287655	IWM	-0.0125	39670	73.75	-101.5855	ADP
3-Jan-12	464287655	IWM	-0.0125	19328	74.975	-50.3166	ADP
3-Jan-12	464287655	IWM	-0.0125	52870	74.975	-137.6364	ADP
7-Feb-12	444903108		0	66265	10.946	0	GGL
8-Feb-12	444903108		0	69151	10.426	0	GGL
26-Feb-13	405217100	HAIN	0	13492	54.247	0	GGL
26-Feb-13	405217100	HAIN	0	33251	54.247	0	GGL

ECF No. 470-6 (McCrary Tr.), Ex. 5808

Netting is not appropriate for impact or at the class certification stage



Judge McMahon

“[A]ntitrust injury occurs the moment the purchaser incurs an overcharge, whether or not that injury is later offset.”

In re Namenda Indirect Purchaser Antitrust Litig., 338 F.R.D. 527, 557 (S.D.N.Y. 2021)



Judge Gershon

“[A]ntitrust injury occurs the moment the purchaser incurs an overcharge, whether or not that injury is later offset.”

In re Restasis (Cyclosporine Ophthalmic Emulsion) Antitrust Litig., 335 F.R.D. 1, 29 (E.D.N.Y. 2020)



Magistrate
Judge Pohorelsky

“[I]t is enough if they provide sufficient evidence to demonstrate that substantially all class members were **overcharged at least once**.”

In re Air Cargo Shipping Servs. Antitrust Litig., 2014 WL 7882100, at *45 (E.D.N.Y. Oct. 15, 2014),
report and recommendation adopted, 2015 WL 5093503 (E.D.N.Y. July 10, 2015)



Judge Conner

“[A]n impacted customer [is] one who tak[es] at least **one transaction at a supracompetitive price**.”

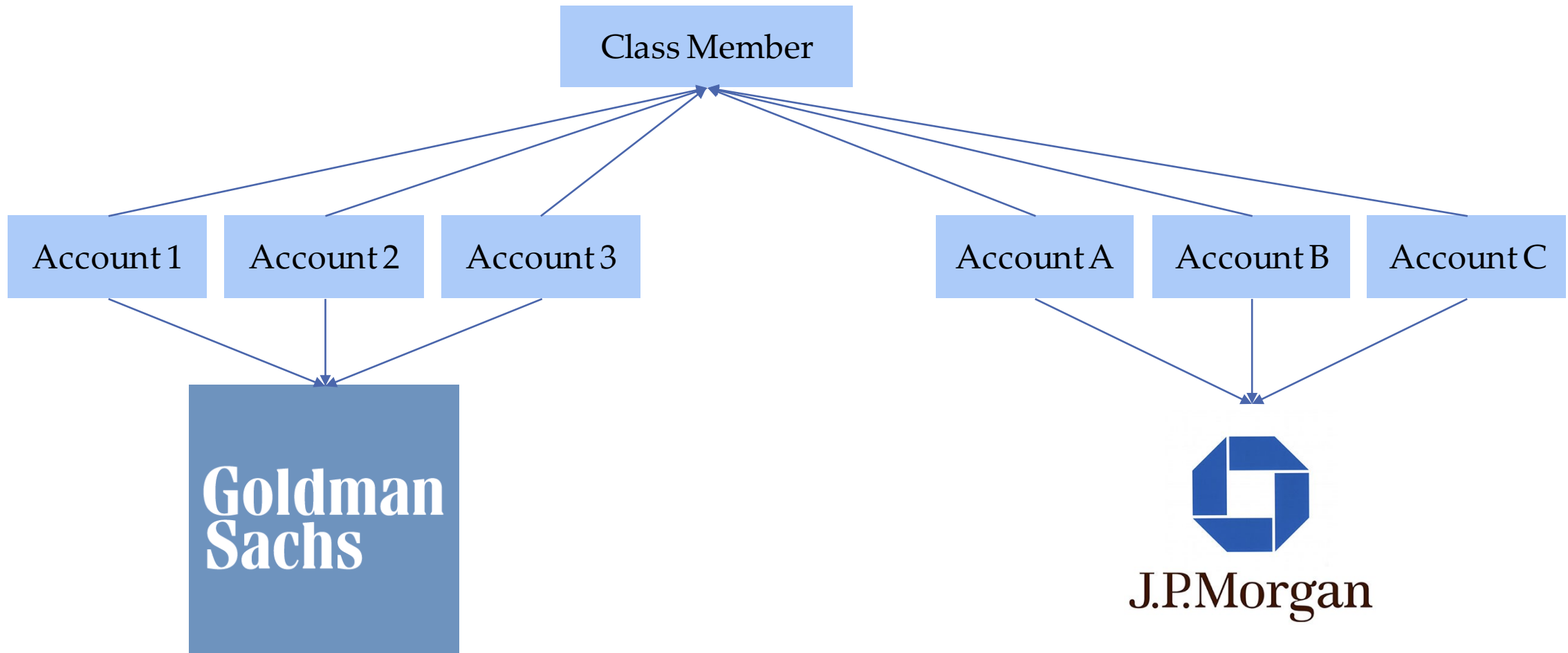
In re Chocolate Confectionary Antitrust Litig., 289 F.R.D. 200, 221 (M.D. Pa. 2012)

Courts net for damages in episodic manipulation cases



***In re LIBOR-Based Fin. Instruments Antitrust Litig.*, 2016 WL 7378980, at *18 (S.D.N.Y. Dec. 20, 2016); *Nypl v. JP Morgan Chase & Co.*, 2022 WL 819771, at *4 (S.D.N.Y. Mar. 18, 2022)**

Professor McCrary conflates End-User *Class members* with their *accounts*, making his netting analysis incomplete



Plaintiffs' damages model shows damages for virtually all Class members

End-User Subclass

Prime Broker Defendant	Number of Accounts Undamaged	% of Accounts Undamaged
Goldman Sachs	11	0.2%
JPMorgan	0	0.0%
Morgan Stanley	0	0.0%
Bank of America	1	0.1%
Credit Suisse	0	0.0%
UBS	1	0.2%
Pooled	13	0.2%




Beneficial Owner Subclass

Prime Broker Defendant	Number of Accounts Undamaged	% of Accounts Undamaged
Goldman Sachs	5	0.4%
JPMorgan	2	0.4%
Morgan Stanley	3	0.3%
Bank of America	5	0.9%
Credit Suisse	0	0.0%
UBS	1	0.2%
Pooled	16	0.4%

ECF No. 470-2 (Asquith/Pathak Reply Rpt.), Ex. C.15 (simplified); ECF No. 469 (Pls.' Reply) at 25

Rule 23(a)

Borrowers and lenders have *common interests*

Issue	Do borrowers and lenders have a common interest?
Proving liability and Class-wide impact	
Maximizing the <u>total damages</u> award	
Ensuring that a damages and apportionment methodology is reliable	

Classes with buyers and sellers have no fundamental conflict



Judge Sweet

“The conflict [between purchasers and sellers] relates only to the apportionment of the damages as between purchasers and sellers. Such hypothetical conflicts regarding proof of damages are not sufficient to defeat class certification at this stage of the litigation.”

- *In re NASDAQ Mkt.-Makers Antitrust Litig.*, 169 F.R.D. 493, 513 (S.D.N.Y. 1996)



Judge Kaplan

“Both buyers and sellers who have used defendants’ services allegedly have been impacted by the artificial inflation of both buyers’ and sellers’ commissions pursuant to the conspiracy. Any distinctions between the two groups are of no moment at this stage of the litigation and pose no bar to class certification.”

- *In re Auction Houses Antitrust Litig.*, 193 F.R.D. 162, 165 (S.D.N.Y. 2000)

Defendants' "zero-sum" conflict argument is routinely rejected by courts in comparable circumstances



Judge Furman

"Courts ... repeatedly recognize[] that putative intra-class conflicts ... which could potentially motivate different class members to argue that the securities were relatively more or less inflated at different time periods, **relate to damages and do not warrant denial of class certification.**"

Sjunde Ap-Fonden, v. General Electric Co., 2022 WL 1078460, at *3 (S.D.N.Y. Apr. 11, 2022)



Judge Brieant

The argument that there is "an inherent conflict ... [that] arises out of sellers' presumed desire to minimize price inflation at the time of the sale, as opposed to the presumed purchaser's desire to maximize price inflation on the date of purchase ... **has been widely discredited.**"

In re Oxford Health Plans, Inc., 191 F.R.D. 369, 377-78 (S.D.N.Y. 2000)

Once a total damages award is set, Defendants have “no interest” in how to allocate damages among Class members



Judge Bacharach

“We reject [defendant’s challenge to the allocation of damages] **because [defendant] has no interest in the method of distributing the aggregate damages award among the class members.**”

In re Urethane Antitrust Litig., 768 F.3d 1245, 1269 (10th Cir. 2014)



Judge Wilson

“[A] defendant has no interest in how the class members apportion and distribute a damage fund among themselves.”

Allapattah Servs., Inc. v. Exxon Corp., 333 F.3d 1248, 1258 (11th Cir. 2003)



Judge Sneed

“Where the only question is how to distribute the damages, **the interests affected are not the defendant’s** but rather those of the silent class members.”

Six (6) Mexican Workers v. Arizona Citrus Growers, 904 F.2d 1301, 1307 (9th Cir. 1990)



Judge Sweet

Despite the concerns raised by the Objecting Defendants, who are no doubt vitally concerned that this action be vigorously litigated and that the plaintiff class recover everything to which it is entitled, no such conflicts are apparent at the present time.

Dietrich v. Bauer, 192 F.R.D. 119, 127 (S.D.N.Y. 2000)

Defendants rely on inapposite settlement cases—*In re Payment Cards* and *Literary Works*

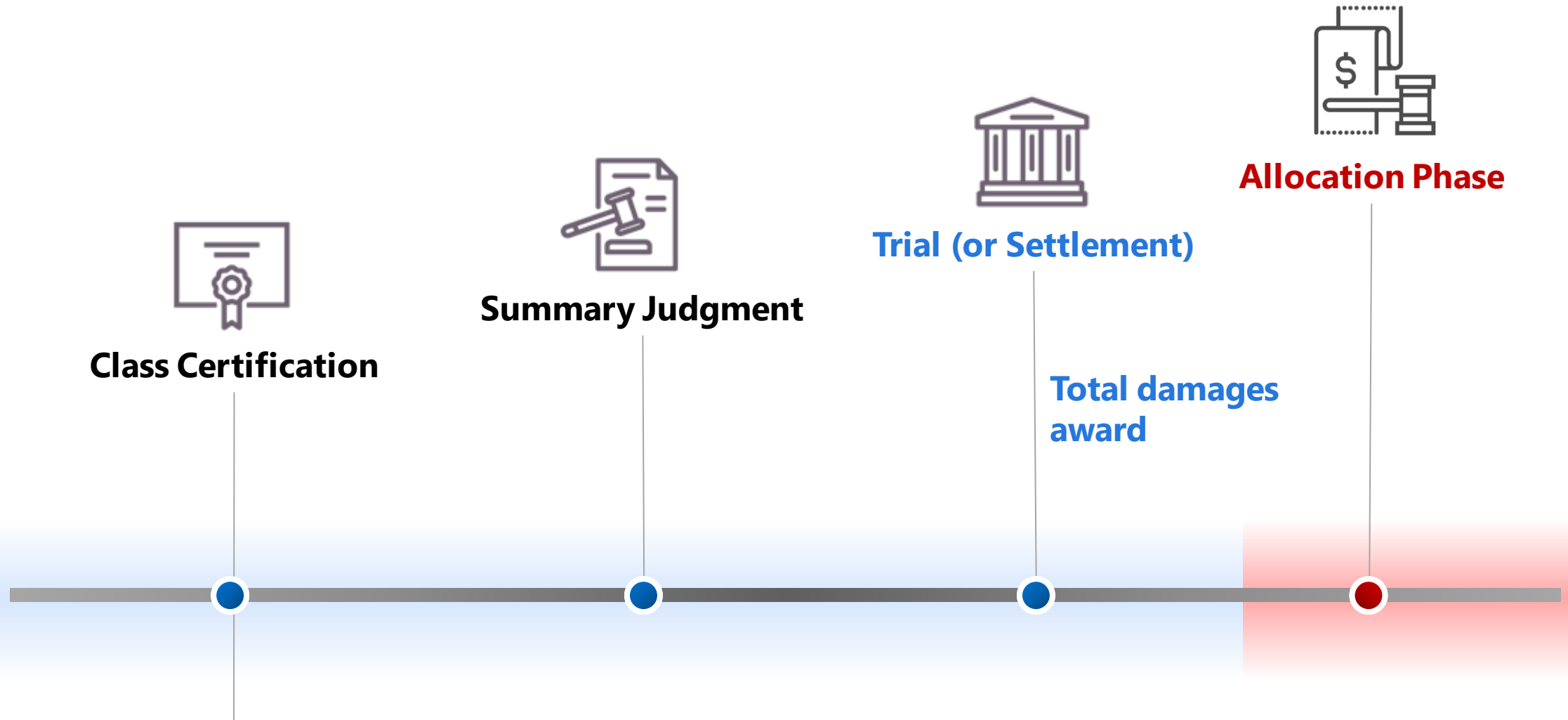


Judge Jacobs

“Problems arise when the (b)(2) and (b)(3) classes do not have independent counsel, seek distinct relief, have non-overlapping membership, **and (importantly) are certified as settlement-only.... As in *Amchem*, *Ortiz*, and *Literary Works*, settlements that are approved simultaneously with class certification are especially vulnerable to conflicts of interest because the imperatives of the settlement process**, which come to bear on the defendants, the class counsel, and even the mediators and the court itself, can influence the definition of the classes and the allocation of relief. **For this reason, we scrutinize such settlements more closely.**”

In re Payment Card Interchange Fee & Merch. Disc. Antitrust Litig., 827 F.3d 223, 235-36 (2d Cir. 2016)

Damages allocation issues will arise only during the Allocation Phase, after trial or settlement



At trial, the jury determines only an aggregate damages award

Case 2:04-md-01616-JWL Document 2799 Filed 02/20/13 Page 1 of 3

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

IN RE:)
URETHANE ANTITRUST LITIGATION) MDL No. 1616
) Case No. 04-1616-JWL
This document relates to:)
The Polyether Polyol Cases)

VERDICT FORM

We, the jury, impaneled and sworn in the above-entitled case, upon our oaths, do make the following answers to the questions propounded by the Court:

1. Do you find that Class Plaintiffs have proved by a preponderance of the evidence that Dow participated in a conspiracy to fix, raise, or stabilize prices for urethane chemicals (as set forth in Instructions 12 through 18)?

Yes X No _____

If your answer to Question 1 is "Yes", proceed to Question 2. If your answer to Question 1 is "No", stop here and your deliberations are complete; do not answer any remaining questions, and proceed to the signature page.

2. Do you find that Class Plaintiffs have proved by a preponderance of the evidence that the conspiracy involving Dow caused Class Plaintiffs to pay more for urethane chemicals than they would have paid absent a conspiracy (as set forth in Instruction 19)?

Yes X No _____

If your answer to Question 2 is "Yes", proceed to Question 3. If your answer to Question 2 is "No", stop here and your deliberations are complete; do not answer any remaining questions, and proceed to the signature page.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

IN RE:)
URETHANE ANTITRUST LITIGATION) MDL No. 1616
) Case No. 04-1616-JWL
This document relates to:)
The Polyether Polyol Cases)

5. State the amount of damages proved by Class Plaintiffs (as set forth in Instructions 20 and 21).

\$ 400,049,039.00

At trial, the jury is tasked with setting an amount for total Class-wide damages. It does not make allocation decisions

The Court has many tools available to it to solve any purported conflict

1) Appoint a special master to allocate damages

OR

2) Appoint Quinn Emanuel and Cohen Milstein to represent separate subclasses

Regardless, the Court is the final arbiter on allocation issues.

Finally, there is no basis to preclude Quinn Emanuel and Cohen Milstein from proceeding as Class counsel

If the court determines that formal subclassing is necessary, existing counsel can represent the Subclasses

quinn emanuel
trial lawyers
quinn emanuel urquhart & sullivan, llp

COHENMILSTEIN



Judge Ambro

“Objectors first assert that the procedure for selecting subclass counsel did not ensure adequate representation because subclass counsel came **from the team of lawyers already negotiating** with the NFL. We agree that class counsel could have gone to the District Court and asked it to appoint counsel from the outside. **Yet objectors point us to no precedent requiring such a procedure.** Moreover, the District Court assured itself that counsel were adequate representatives.”

In re Nat'l Football League Players Concussion Inj. Litig., 821 F.3d 410, 429 (3d Cir. 2016), as amended (May 2, 2016)

Superiority

A class action is superior to individual lawsuits in this case

Many Class members have little incentive to recover individually

No independent litigation has been brought

Litigation of common issues will promote judicial efficiency



Class counsel's accommodation of some Class members' privacy concerns does not defeat superiority

Class counsel *already* posted notice to Class members via Pacer regarding data productions and security measures

No Class member has objected to the data being produced in the anonymized form Class counsel received

Class counsel accommodated seven hedge funds by defining them out of the class

Class members will *again* have the option to opt-out, if they are concerned about their data security



Plaintiffs have shown that all three elements of an antitrust action can be proven on a Class-wide basis with common evidence

1) Liability

2) Impact

3) Damages

When Plaintiffs can prove each of these elements with evidence common to the class, Defendants' individual defenses do not defeat predominance!

Costs:

Plaintiffs' BFW costs estimates are reasonable.

The Court does not need to untangle the parties' numerous costs disputes to certify the Class



"Many of these criticisms ... deal in a level of minutiae that would be inappropriate for the court to resolve at this early stage. For example, the court is unconcerned at this juncture ... whether he has omitted any minor variables and whether the variables he has included are perfectly specified.... The court appreciates that expert statisticians may differ on these issues...."

In re Air Cargo Shipping Servs. Antitrust Litig., No. 06-MD-1175, 2014 WL 7882100, at *58 (E.D.N.Y. Oct. 15, 2014), *adopting R. & R.*, 2015 WL 5093503 (E.D.N.Y. Jul. 10, 2015).

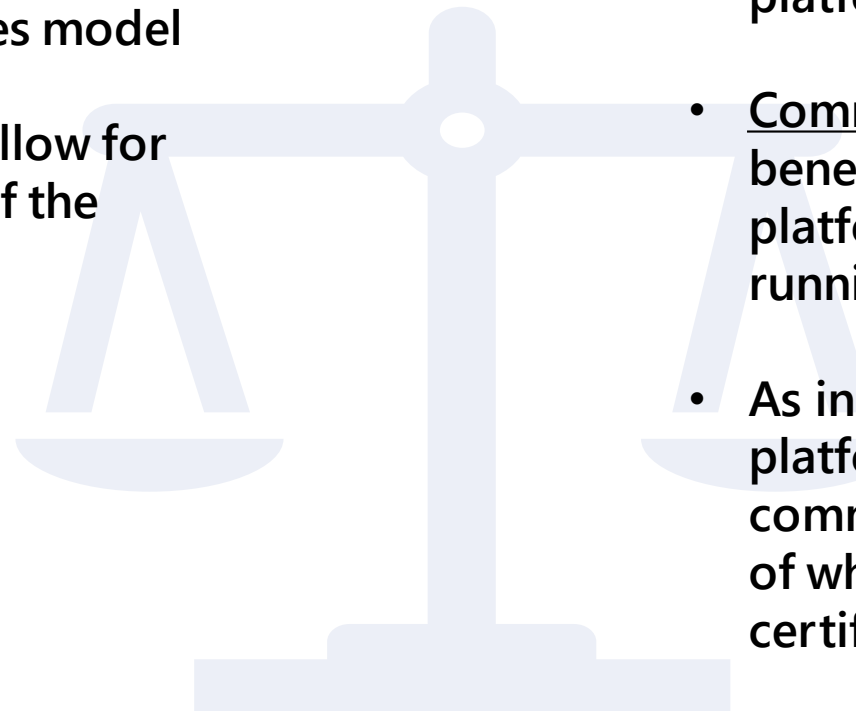
Costs are of limited relevance to today's proceeding

DAMAGES

- The costs of platform trading are one input to the Asquith/Pathak damages model
- Damages model must allow for a reasonable measure of the Class's damages

IMPACT

- The costs of platform trading are only relevant to the viability of a platform
- Common evidence that the benefits from transitioning to a platform exceed the costs of running the platform
- As in *Amgen*, the question of platform viability is a core common question, the existence of which supports class certification



Countless financial products are traded on electronic platforms



Exchange-Traded Products

- Stocks
- Credit Default Swaps
- Futures
- US Treasuries
- European Government Bonds
- Standardized Interest Rate Swaps
- FX Options & Swaps
- Repo
- Single Stock Futures

Functioning Stock Loan Platforms

- Taiwan
- Malaysia
- Brazil
- India

Several sophisticated market participants believed a stock loan platform *was* viable

Bank of America 

 OCC

Renaissance 

 SIG
S U S Q U E H A N N A

NYSE 

 Nasdaq

ISE 
International Securities Exchange.

- Instability among top tier broker/dealers and an evolving regulatory environment has created demand for Quadriserv's platform, which provides transparency, price efficiency and automation.
- Potential for incremental prime brokerage revenue: as ML is the only broker-dealer currently connected, we have the potential to capture incremental client balances prior to competitors joining the AQS exchange.

- Beyond the ML relationship and the OCC relationship (described below), Quadriserv has developed strategic partnerships and relationships that should accelerate the acceptance of its AQS exchange product.
 - In addition to Renaissance and Susquehanna (both investors), the Company expects DE Shaw and Och-Ziff to be first adopters of its service. These four funds represent 10-15% of the daily volume in the domestic stock-loan market.

- The Company limited marketing the Series D round to new strategic investors. A high level of interest was shown by three major exchanges (ISE, Nasdaq and NYSE) all of which provided some form of bid for the Series D. These companies represent the best potential buyers for the Company in a sale situation due to the similarity in business models.

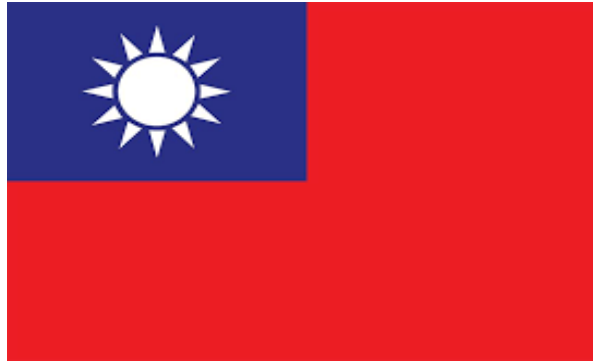
ECF No. 414-50 (Pls.' Mot. Ex. 50) at slides 4-6

Dr. Zhu's analysis showed that the costs of running a platform are very small



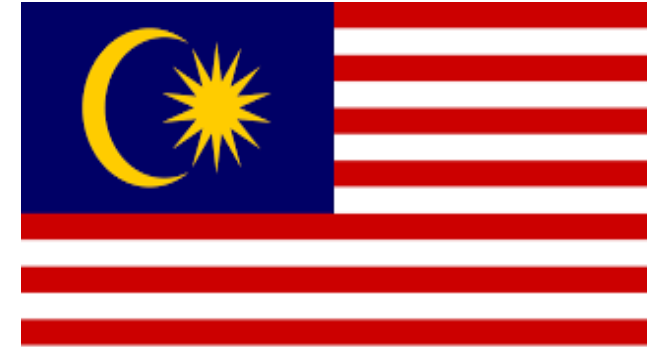
2 bps

Operating Expenses of Platform



2% of fee

Taiwan Stock Lending Exchange



4 bps

Malaysian Stock Lending Exchange



“[T]he average fee for regular-hours trading, across the three largest stock exchange families, is around \$0.0001 per share per side – or about 0.0001% per side for a \$100 stock.”

Eric Budish et al., *A Theory of Stock Exchange Competition and Innovation: Will the Market Fix the Market?* 4 (Becker Friedman Institute, Working Paper No. 2019-72, 2020), cited in ECF No. 514-1, ¶ 126 n. 189

Platform adoption by even a small portion of the market yields significant benefits from spread reduction



Weighted Average Spread Reduction

41 bps



**End Users/Short
Sellers**

**But for World
Platform**

Beneficial Owners

ECF No. 414-9 (Zhu Rpt.) ¶¶ 94-115

ECF No. 414-10 (Asquith/Pathak Rpt.), Table XI.8

The benefits from spread compression dwarf the cost of maintaining a platform



Weighted Avg Benefits of Platform Trading

41 bps

Hard to Borrow - Avg Benefits

96.4 bps

Warm - Avg Benefits

22.1 bps

General Collateral - Avg Benefits

19.4 bps

Costs of operating the platform

2-4 bps

ECF No. 414-9 (Zhu Rpt.) ¶¶ 112-115

ECF No. 470-2 (Asquith/Pathak Reply Rpt.), Ex. D3

The relevance of *costs* to *impact* ends here



Common Evidence: Benefits of platform trading > costs of maintaining a platform



Common Evidence: Platform trading was viable



No other inquiry into costs is necessary for impact

Professors Asquith & Pathak accounted for platform costs in calculating the Class's damages



Asquith/Pathak Estimated Platform Costs for Damages Model

(1) Sponsorship Costs (2) Platform Fees

✓ Other markets

✓ Regulations

✓ Record Evidence

✓ Academic Literature

✓ Expertise

BOs
4-33 bps

End-Users
9-38 bps

TOTAL
GC: 9.75 bps HTB: 13-71 bps

ECF No. 470-2 (Asquith/Pathak Reply Rpt.), Sec. III.D; ECF No. 514-1 (Asquith/Pathak Sur-Reply Rpt.) Sec. III.A

Professors Asquith's and Pathak's cost estimates are conservative

- 1 Use platform fees from the class period that do not reflect competitive fees.
- 2 Platform fees do not include volume discounts actually provided by AQS.
- 3 Include sponsorship costs even though members of the CCP would not have had these costs.
- 4 Incorporate Dr. Hendershott's higher estimate for default fund costs.
- 5 Do not include any benefits of using a CCP such as balance sheet netting.

The Asquith/Pathak cost estimates are reasonable and consistent with platform viability



Asquith/Pathak Estimated Platform Costs

(Beneficial Owners + End Users)

Weighted Avg OTC Spreads

GC: 19.4 bps
HTB: 96.4 bps



GC: 9.75 bps
HTB: 13-71 bps



Costs Competitive Exchanges

2% of fee (Taiwan)
4 bps (Malaysia)
.01 bps (Budish)

The parties' experts arrive at different estimates for several components and subcomponents of platform costs



Asquith/Pathak



Hendershott

	BOs	End-Users	BOs	End-Users	
Sponsorship Costs	3 bps Reg cap: 0 Initial Margin: 0 Default Fund: 3	8 bps Reg cap: 0 Initial Margin: 2-5 Default Fund: 3	26-69 bps Reg cap: 20-28 Initial Margin: 3-38 Default Fund: 3	21-62 bps Reg cap: 15-21 Initial Margin: 3-38 Default Fund: 3	✓
	1-30 bps (HTB) GC: n/a HTB: $\min(.10 * Pp, 30)$ fixed/maintenance: n/a	1-30 bps GC: 1.75 HTB: $\min(.10 * Pp, 30)$ fixed/maintenance: n/a	1-30 bps GC: 1-1.75 HTB: $\min(.10 * Pp, 30)$ fixed/maintenance: n/a	19-354 bps GC: 1-1.75 HTB: $\min(.10 * Pp, 30)$ fixed/maintenance: 18-324	✓
	Total GC n/a	Total GC 9.75 bps	Total GC 27-70.75 bps	Total GC 67-417.75 bps	✓
Total HTB	4-33 bps	9-38 bps	27-99 bps	67-446 bps	
Total Costs Per Trade (BOs + End-Users)	GC: 9.75 bps HTB: 13-71 bps		GC: 94-488.5 bps HTB: 94-545 bps		

Expert disputes about inputs to Plaintiffs' damages model do *not* bar class certification

"[N]either side will ever prove whether its predictions are correct. The but-for world is, by definition, hypothetical."

In re Restasis (Cyclosporine Ophthalmic Emulsion) Antitrust Litig., 335 F.R.D. 1, 19 (E.D.N.Y. 2020)

"[T]hat the experts dispute what the appropriate inputs should be does not undermine the approach or the reliability of [an expert's] model."

In re Lidoderm Antitrust Litig., 2017 WL 679367, at *12 (N.D. Cal. Feb. 21, 2017)

"roughly reflect"

Hickory Sec. Ltd. v. Republic of Arg., 493 F. App'x 156, 159 (2d Cir. 2012)

Professor Hendershott's inflated cost estimates make no sense



Hendershott's Estimated Platform Fees

(Beneficial Owners + End Users)

GC: 20-327.5 bps

HTB: 48-384 bps

Platform Costs in Competitive Markets

2 % of fee (Taiwan)

4 bps (Malaysia)

.01 bps (Budish)

**Professor Hendershott's estimates are HUNDREDS
of times larger than functioning platforms.**

ECF No. 432-1 (Hendershott Rpt.) ¶¶ 256-262; Ex. 19.

Professor Hendershott's costs analysis would have made the actual, OTC world unprofitable—no evidence suggests this was the case



UNDISPUTED: Prime Brokers incur Regulatory Capital Costs from OTC Stock Loans too

Hendershott's Regulatory Capital Costs: OTC

Total OTC: 33.94-47.8 bps

Asquith/Pathak's Weighted Average OTC Spreads by Temperature

**19.4 bps (GC)
22.1 bps (Warm)
96.4 bps (HTB)**

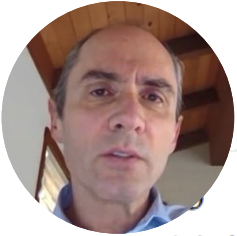
ECF No. 432-1 (Hendershott Rpt.), App. C ¶¶ 17-20

Professor Hendershott fails to recognize the OCC provision allowing entities to post securities as margin



RULE 604 – Form of Margin Assets

(b) *Securities.* The types of securities specified in subparagraphs (1) - (4) of this paragraph (b) may be deposited with the Corporation in the manner specified for each.



Didn't know

Q. Let me try this. Can a
14 beneficial owner post general collateral
15 to satisfy margin requirements?
16 A. In exactly what context?

6 Q. Yes, we are talking about stock
7 loans, sir, yes.

8 A. And so the OCC, I believe, only
9 accepted cash collateral -- I'm sorry,
10 the OCC accepted cash.

ECF No. 470-4 (Hendershott Tr.) at 120:13-16, 121:6-10



Didn't Include

A. The Options Clearing
Corporation business is generally
12 clearing options on equity
13 securities. And as such they do
14 allow posting of equity collateral
15 as -- as against exposures and do
16 allow netting, yes.

22 Q. But you don't mention that
23 possibility in your report, do you?

24 A. No, I don't believe I do.

ECF No. 470-12 (Pridmore Tr.) at 363:4-364:24

Ultimately, the *jury* will decide whose cost estimates it deems most reliable in the context of awarding Class damages

“[I]t does not come with very good grace for the wrongdoer to insist upon specific and certain proof of the injury which it has itself inflicted.”

In re Elec. Books Antitrust Litig., No. 11-MD-2293, 2014 WL 1282293, at *17 (S.D.N.Y. Mar. 28, 2014) (quoting *J. Truett Payne Co. v. Chrysler Motors Corp.* 451 U.S. 557, 566-567 (1981))

“The jury may consider these arguments as a basis for either reducing or withholding any damage award. At this stage, they do not affect the model’s status as acceptable common proof.”

In re Air Cargo Shipping Servs. Antitrust Litig., 2014 WL 7882100, at *63 (E.D.N.Y. Oct. 15, 2014), adopted 2015 WL 5093503 (E.D.N.Y. Jul. 10, 2015)

“Calculations need not be exact...”

Comcast Corp. v. Behrend, 569 U.S. 27, 35 (2013)

FTAIA:

The inapplicability of the FTAIA can be shown using *solely common evidence*.

The FTAIA poses no bar to the Class's antitrust claims



Domestic conspiracy




US stock loan market

US-listed securities

AQS – US platform

Class limited to US effects of conspiracy

Common evidence establishes the domestic effects of this case

Factor	Common Proof	Satisfied
Defendants' anticompetitive conduct had "a direct, substantial, and reasonably foreseeable effect" on domestic commerce.	Defendants blocked U.S.-based multilateral electronic platforms that would allow borrowing and lending U.S.-listed stock.	
The "domestic effect resulting from the defendants' anticompetitive conduct proximately caused [the plaintiffs'] injury."	Class members charged higher prices for their U.S. stock loan transactions without the price discipline of U.S.-based multilateral electronic platforms.	
Domestic effects impacted every trade in the class.	Class definition: <ul style="list-style-type: none"> • covers only U.S.-listed stock loans; • covers only loans with U.S.-based Defendant entities. 	

The Foreign Trade Antitrust Improvement Act (15 U.S.C. § 6a)